# MOTOR AGE

A Chilton Class Journal Publication Published Weekly September 1, 1927

Dealers who have the good judgment and foresight to handle the first small sized American car of unquestioned quality, with a line of custom bodies and complete custom equipment are reaping the initial harvest of orders from people who have been hoping for years that some manufacturer would have nerve enough to build such a car.

That explains the instant success of the Little Custom Jordan.

# Oakland's Oldest Automobile Dealers Have Sold Hupmobiles Since 1914

The comments of Hupmobile owners who patronized their small garage in Oakland, California, early in 1914, first attracted the attention of Messrs. Hebrank, Hunter & Peacock to the possibilities of the Hupmobile franchise.

"These owners were enthusiastic about the service their cars were giving, and when we became familiar with the way Hupmobiles were built, we quickly saw the reason," writes Mr. Hebrank. "Our business, since taking on Hupmobile, has grown consistently every

year. We have marketed close to 1,700 Hupmobiles and have built our present fine establishment—the largest in Oakland—out of the profits."

The stable profits offered through the sale of Hupmobile Eights and Sixes is best evidenced by the fact that 81% of Hupmobile distributors and 25% of all dealers have sold Hupmobiles for periods ranging from 12 years down to 3 years.

We will gladly forward details of the Hupmobile contract to interested dealers upon request.

HUPP MOTOR CAR CORPORATION DETROIT, MICH.

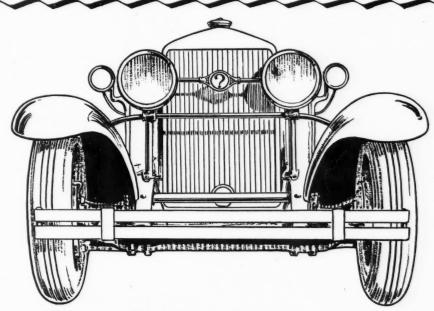
# HUPMOBILE

EIGHTS & SIXES



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le



# Revolutionary: - A brand

new revolutionary idea in Eight-cylinder construction that bids fair to become the engineering triumph of the season. An 87 h. p. 80-miles-per-hour high compression anti-knock motor with dual carburetion and feather-weight Bonahlite strut pistons gives amazing margin of power, speed and flexibility. Also a seven-bearing Six of equally revolutionary speed, size and beauty.

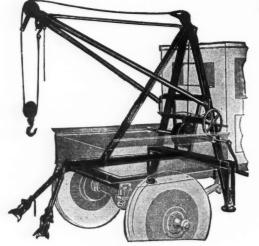
Bodies by a notable French engineer, but a chassis designed and constructed for America. In no sense a European type except in its individuality of appearance and style.

And the prices between \$1000 and \$2000 set an entirely new measure of value. A franchise that gives you control of your business and enables you to sell right up with the leaders. Write or wire at once. Manufacturer, Box 123, New York City.

# Certain Profits



# HOLMES WRECKER No. 250



CAPACITY 4 TONS

Holmes Wrecker No. 250 is a power-ful double boom type wrecker at a mod-Two speed hoisting mechanism, 100 foot service line, one man operation, V Tow Bars and 4 ton capacity are a few of its outstanding features.

PRICE \$250.00

Profits begin the very first day you put this efficient moderate price wrecker into service. There is no long period of waiting. Scores of motorists are getting into trouble every day and the far-sighted garage man that equips himself to handle their business efficiently will find his profits mounting beyond his fondest expectation.

Holmes double boom type wrecker No. 250 with its powerful two-speed hoisting mechanism and 100 foot service line enables one man to bring in the most serious wreck single-handed. This inherent efficiency of the Holmes No. 250 not only assures maximum profits on every job but it advertises your business more strikingly and more forcefully than any other means you can employ.

Therefore, when you put on a Holmes No. 250 you are not merely making an investment in better equipment, but you are making an investment in constant increasing revenue and positive certain profits.

> Ask your Jobber for full information or write for complete catalog.

# Ernest Holmes Company

CHATTANOOGA

TENNESSEE

# HOLMES GARAGE PRESS

Nothing can so reduce your labor costs as this combination Arbor and Heavy Duty Garage Press. It leads the field in speed, efficiency and convenience.

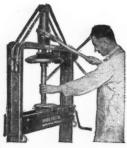
The bolster is quickly adjusted to any height by means of a simple, self-contained hoisting mechanism. The high speed lever has a thrust capacity of 4,000 pounds, while the low speed spike wheel exerts a powerful pressure of 60,000 pounds. All strokes are downward and all levers are right-hand operated. Two casters mounted on the frame permit the press to be rolled about the shop.

Price, With Standard Equipment, \$110.00



This rugged jack embodies all the desirable features of the most efficient equipment on the market. It can raise or lower its load from any position with any length stroke, and has a lifting range of from 6 to 17 inches, making it universal for all cars.

It is just as simple to lower as it is to raise. No load on handle when lower-No pawls or levers to ing. operate.



Ask Your Jobber.

PRICE, \$38.00

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Reg. U. S. Pat. Off. Established 1899

JULIAN CHASE, Directing Editor C. EDWARD PACKER, Technical Editor JOHN C. GOURLIE, News Editor L. C. DIBBLE, Detroit News Rep. ATHEL F. DENHAM, Field Editor

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# Write for this

It will show you some of the merchandising ideas that will sell Vernay Shutters this season.

You know we have a good shutter. The price (retail \$5.50 to \$12.00) is right. And when you see the way we are merchandising Vernays the elaborate, full-color window displays, counter cards, folders and novelties-you will be convinced that here is something on which you can make profits with a minimum of effort.

Write to your jobber now. Place an order for Vernays. Ask us to tell you of the selling plans behind Vernay Shutters for this season.

Laminated Shim Co., Inc., 216 Fourteenth Street, Long Island City, N. Y.



AMERICA'S FINEST TYPE OF MOTOR

# The years to come

For years to come the demand for cars powered by the famous Knight double-sleeve-valve engine will continue to grow at a rapid rate.

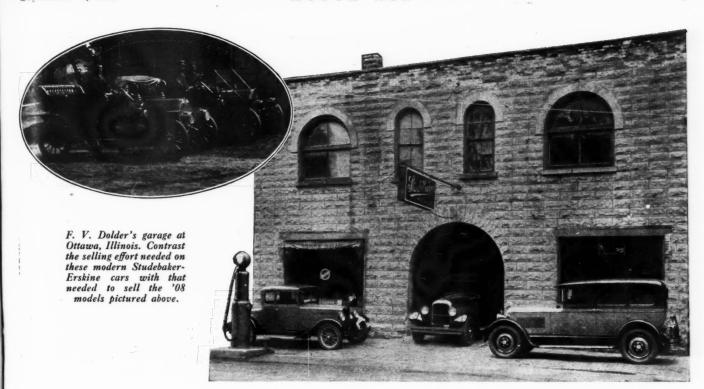
Falcon-Knight is the only Knightengined car in the \$1000 price group.

Falcon-Knight dealers are building a permanent business on a sound foundation.

FALCON MOTORS CORPORATION · DETROIT

# Falcon-Knight





# After 19 Years' Experience F. V. Dolder Says—

"WE make our easiest profit selling customers the second time—some of them four, five and six cars in succession. That is proof of owner satisfaction."

Similar reports from dealers all over the

country bear out like experiences — one dealer reporting the sale of the 20th Studebaker to one man.

Recently 15,990 Studebaker owners located in all parts of the United States were asked "When you buy a new car, what will you buy?" and 88.9% answered "Another Studebaker."

Is it any wonder that Mr. Dolder after nineteen years as a Studebaker dealer at Ottawa, Illinois, says:

"I consider the Studebaker - Erskine franchise the most valuable asset any dealer can have!"

The Studebaker-Erskine franchise may be inadequately represented in your territory—or not at all. Wire or write today for complete and confidential information. Address Department 51, The Studebaker Corporation of America, South Bend, Indiana.



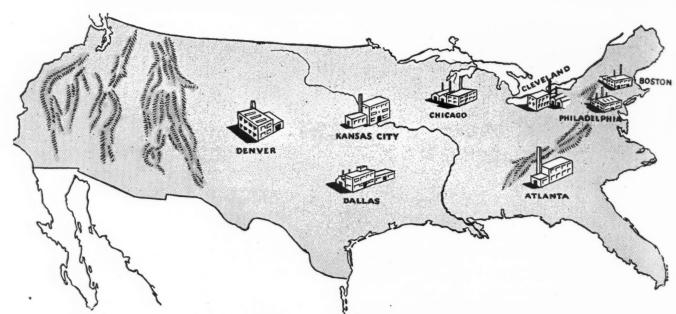
Mr. F. V. Dolder Studebaker dealer for

# STUDEBAKER

ERSKINE SIX



Two franchises in one—offering cars from \$895 to \$2250



# Wherever You Are · · ·

There is a complete factory branch and warehouse stock of Eaton replacement springs within overnight shipping distance

You may never be worried that an Eaton jobber cannot supply the replacement spring you need. With huge factory warehouse stocks within easy reach, the Eaton jobber is never "out." If you are called upon to replace an old, forgotten spring that a jobber is not warranted in stocking, you can get it through an Eaton jobber, for not only do our Branches carry slow moving numbers but they are equipped to manufacture any spring, no matter what the specifications.

Write today for the name of the nearest Eaton Spring jobber. No other can offer you such fine service and so profitable a proposition.

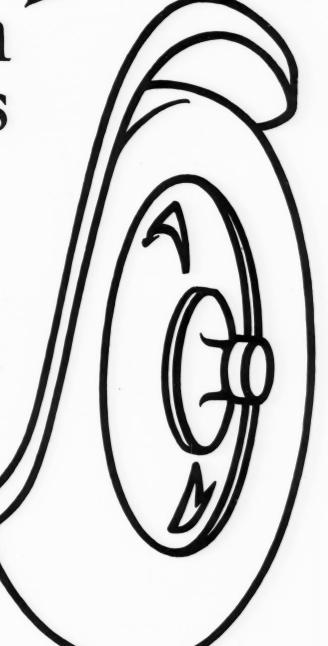


EATON SPRINGS

Timkens in Front Wheels

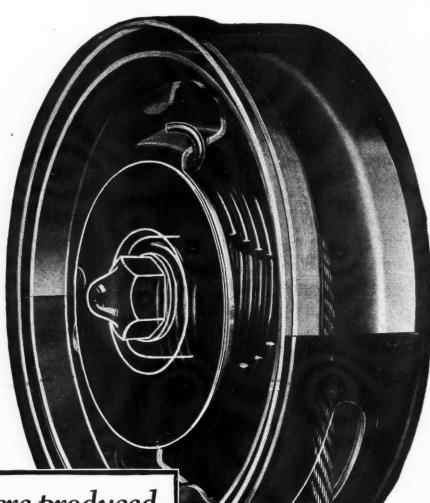
Look at Timken dominance both ways—by makes of motor vehicles that are Timken-equipped, and by chassis locations. Where it is more than a problem of friction-elimination—where heaviest thrust, shock and weight are concentrated—the job is awarded to Timkens. Their tapered construction, electric steel and POSITIVELY ALIGNED ROLLS make them invincible. They are an almost unanimous choice for the front wheel mounting.

THE TIMKEN ROLLER BEARING CO. C A N T O N , O H I O



Auburn, Cadillac, Chandler, Chrysler, Diana, Dodge, Erskine, Essex, Ford, Franklin, Gardner, Hudson, Hupmobile, Jordan, Lincoln, Marmon, Moon, Paige, Peerless, Pierce-Arrow, Reo, Star, Stearns-Knight, Studebaker, Stutz, Velie, Whippet, Willys-Knight, and many others use Timken Tapered Roller Bearings in front wheels.

TIMKEN Tapered BEARINGS



388,000 cars\* were produced by 6 manufacturers during the first half of 1927 without shock-absorbers

Not including Ford Cars

# Are you getting your share of this tremendous market?

Whether you are a car dealer or sell only a line of accessories, you cannot afford to overlook this profitable market for WEED Levelizers.

You are backed up with strong advertising of all kinds. Levelizers give exceptionally good riding comfort and stand continuous hard service.

If you are not handling WEED Levelizers now, it will pay you to get all the information. Write the American Chain Company, Inc., Bridgeport, Connecticut—or see your jobber.

# **WEED** Levelizers

"Level the road as you go"

# MOTOR AGE

VOLUME LII

Philadelphia, Pa., Sept. 1, 1927

NUMBER 9

# August Production 10 Per Cent Better

Sales Generally Improved and Prospects for Fall Trade Considered Good

# FORD OUTPUT LOW

NEW YORK, Aug. 31—Production of cars and trucks during August will show an increase of at least 10 per cent over the July total, this despite the fact that only a few cars have been turned out by the Ford Motor Co.

There is increasing indication that the Ford contribution to the industry output in the latter months of the year will be small, probably not arriving at any real large production basis until November. The first of the new cars will not come off the lines until September is well advanced and a rate of little more than 1000 daily is looked for in the late month and in October.

Unless the new car proves to be a sensation and is offered at a price warranting buyers in waiting months for deliveries, it is not likely that the business of other small car manufacturers will be seriously affected this year. In the meanwhile sales of cars in practically all classes are at a much improved rate and reports from leading trade centers indicate a sharp upturn in buying during August.

(Turn to page 12, please)

# Topley Leaves Spicer to Join Lord Mfg. Co.

DETROIT, Sept. 1—Harry W. Topley, for eight years Western sales manager of the Spicer Manufacturing Corp., has resigned to take an active interest in the Lord Mfg. Co., of Erie, Pa. Mr. Topley will have charge of sales and is opening offices at 5-207 General Motors Bldg. He has a wide acquaintance with manufacturers, having spent many years in sales and engineering work.

Ozburn in Europe

CHICAGO, Aug. 29—N. Field Ozburn, former president of the Automotive Equipment Association, is now in Europe on a combined recreation tour and survey of automotive conditions. Mr. Ozburn is acting in the interest of the A. E. A.'s show and convention to be held in Chicago, Nov. 7 to 12, to which many leading automotive men in Europe will come. Last year more than 60 Europeans attended the show.

## A Real Chance to Boost Your Man

ARE you using the contest coupons to help elect the most popular jobber salesman in your zone?

Do you believe that merit should be recognized and applauded? Of course you do!

In another part of this issue is a FOUR-VOTE coupon. Fill it out and mail it promptly to the contest editor of Motor World Wholesale, Chestnut and 56th Streets, Philadelphia, Pa.

# F. H. Rengers Elevated to

Vice-Presidency of Moon ST. LOUIS, Aug. 30—At the annual meeting of the stockholders of the Moon Motor Car Co., F. H. Rengers, general sales manager, was elected a vicepresident and member of the board of

### Stone Willys Branch Head

MILWAUKEE, Sept. 1—Charles O. Stone, wholesale manager of Anger, Inc., has been promoted to manager of the Milwaukee factory branch of Willys-Overland, Inc. He succeeds Bert F. Anger, president of Anger, Inc., who accepted the branch managership temporarily upon the death of Tom C. Mc-Millan several months ago. The Anger retail operation, covering Milwaukee county, has grown to such size that Mr. Anger feels it requires his entire time and attention.

Mr. Stone has virtually been assistant branch manager under Mr. Anger.

# Castle Leaves Hayes

DETROIT, Aug. 29—Fred E. Castle, who has been identified with the automotive industry almost since its inception, and until recently connected with the Hayes Wheel Co., has been elected a vice-president of the Commercial Poster Co., of Cleveland, and has established headquarters in General Motors Building, Detroit.

#### Fred Cantrell

EUSTIS, FLA., Aug. 29—Fred Cantrell, president of the Eustis Automobile Club, died late Friday at his home here of double pneumonia, which he contracted two weeks ago after returning from the Middle West. He was 41 years old.

# Whippet Entering Light Truck Field

7 Delivery Models, Including Trio of Slip-On Bodies, Round Out Line

PRICES \$625-\$710

TOLEDO, Sept. 1—Entry of the Whippet cars into the light commercial field is announced by Willys-Overland, Inc., with the introduction of two different commercial car types embracing seven styles of bodies all mounted on the standard four cylinder chassis.

Because of their compact design and economical operation the officials of Willys-Overland are anticipating a large demand for this new line of cars, all of which are priced below \$700 except one model listing at \$710.

Four body types comprising panel delivery, open express, canopy top express, and canopy top express, and canopy top express with screens are offered in the de luxe delivery series, the load capacity of which is rated at 700 lbs. The panel delivery car which is expected to be the most popular model in the group is priced at \$685 with the other models listing as follows: open express \$665, canopy top express with curtains, \$670, and canopy top express with screens, \$710. All prices are f. o. b. Toledo, O.

For the smaller merchant and the traveling salesman a trio of commercial roadster bodies have been introduced. A feature of this line is the speed and ease with which the regular commercial roadster with sample compartment can be converted into two different styles of delivery cars with slip-on bodies. These jobs, complete, list at \$625, \$645, and \$665.

# Kublin and Wallace New Directors of Moon Co.

ST. LOUIS, Aug. 29—G. F. Kublin, chief engineer, and W. C. Wallace, eastern sales manager, were elected directors of Moon Motor Car Co. at the annual meeting this week, succeeding G. F. Schelp and Alfred Moberly.

Chapin Returns

NEW YORK, Aug. 29—Roy D. Chapin, president of the National Automobile Chamber of Commerce, who returned to the United States last week from an extensive trip abroad, reports the automobile industry in all countries joining in a united effort to foster motor transportation.

# Ten Million Backs Relay Corp. Merger

Combine Also Paves Way for Big Scale Introduction of Relay Axle

DETROIT, Aug. 29—Announcement of the recent Relay Motors Corp. merger by E. W. Bassick of Bridgeport, Conn., formerly in control of the Bassick-Alemite Corp., marks the first direct entry of the Bassick interests into the motor vehicle field. The Relay Motors combine is also significant in that it paves the way for the introduction to the truck field on a large scale of the Relay axle.

The Relay Motors Corp. made public early in August their acquisition of the Garford Truck Co. of Lima, Ohio, Previously this corporation had absorbed the Commerce Motor Truck Co., of Ypsilanti, Mich., and Service Motors, Inc., of Wabash, Ind. It is rumored in the motor truck industry that several other strong producing units are negotiating with the Bassick interests with a view to joining the combine.

According to present plans, the Relay Motors Corp. expects to manufacture, distribute and service Commerce trucks, Garford trucks and buses, Service trucks and Relay trucks. The Relay truck will be equipped with the Relay axle, which is also controlled by the Relay Motors Corp. and represents a new principle in motor truck propulsion. No manufacturers not represented in the merger will be licensed in its use.

With the acquisition of the Garford Truck Co., Relay Motors has a combined producing capacity of 25,000 trucks per year. It is expected that in the early fall Relay Motors will undertake a vigorous expansion of its sales outlets in every section of the Union. The new combine has assets approximately \$10,000,000. It has the backing of eastern banking interests, and is assured a financial structure destined to make Relay Motors one of the strongest factors in the motor truck industry.

The Relay axle, which will be manufactured in the Garford plant at Lima, Ohio, differ in principle from any axle heretofore used in trucks, buses or passenger cars. It is really two axles in one, a wheel axle and a drive axle.

#### Batterson on Coast

FLINT, Sept. 1-A. Brown Batterson, director of advertising of the Buick Motor Co., accompanied by Mrs. Batterson, has left for a six-weeks' trip to the Pacific Coast. Their trip will take them to points in Washington, Oregon and California.

#### Cassady Joins Fette Sales Co.



Made Sales Manager

J. Howard Pile, who has been named sales manager of Smith & Gregory, New York. Mr. Pile has been con-nected with the New York branch of United Motors Service in an executive capacity and was formerly technical editor of Motor World.

traveling in this section of the country for the New Era Spring & Bumper Co., has joined the Fette Motor Sales Co. as wholesale manager, and will cover the same territory for this concern. The Fette Company is distributor for the Falcon-Knight and the Stearns-Knight.

# George Souders Enters Grand Prix of Europe

INDIANAPOLIS, Aug. 29 - George Souders, winner of the 500-mile Indianapolis Sweepstakes, this year will enter his Duesenberg Special in the Grand Prix of Europe, Sept. 4, at Monza, Italy, it was announced here today.

Souders has already sailed for Milan and his headquarters there will be at the Isotta Franchini factory. He will have several days' practice over the course, considered one of the most difficult in the world.

It was necessary for Souders to obtain permission from the American Automobile Association to enter this race because of the fact that he still leads in points for the 1927 Drivers' championship.

#### Blackhawk Buys Hawkeye

WATERLOO, IA., Aug. 31—The Blackhawk Oil Co. of Waterloo has acquired the Hawkeye Oil Co. of Delaware and will merge the two concerns with headquarters here.

#### Hillhouse Motor Co. Moves

HAINES CITY, FLA., Aug. 29-The CINCINNATI, Aug. 30-E. L. Cas- Hillhouse Motor Co. has moved into the sady, who for some time has been new Hughes Building on Eighth St.

# Marmon Outlets Gain 100 Per Cent

Several Distributors and Many Dealers Since Advent of New Car

INDIANAPOLIS, Aug. 31 — The rapid expansion in the distributor and dealer organization of the Marmon Motor Car Co., which was an outstanding feature in the retail automobile field during the first six months of the year, has continued steadily this summer, it is shown in an announcement by H. H. Brooks, Marmon general sales director, of the appointment of four new distributors and 50 new dealers in July and August.

Growth in the number of Marmon sales outlets began immediately after the Marmon Eight was introduced early this year and an increase of well over 100 per cent as compared with last year has been effected. This gain in the distributive organization has been one of the principal factors enabling the Marmon company to establish new record sales both of the Marmon Eight and the Series 75.

New distributors include L. M. Von Schilling at Newport News, Va., and the Marmon Salt Lake Co. at Salt Lake City, Utah. John Musch, Jr., has been appointed distributor at Aberdeen, S. D., with a territory which includes the entire northern section of the state, and Lohman & Watters, Inc., are the new distributors at Rochester, N. Y.

### Made Olds Distributor

ST. LOUIS, Aug. 30 — Lambert-Graves Motor Co., Inc., 4037 Lindell Blvd., has been appointed Oldsmobile distributor in St. Louis, according to an announcement by R. L. Samuel, manager of the St. Louis branch of the Olds Motor Works.

The company will have jurisdiction of Oldsmobile dealers in St. Louis County and St. Charles County.

Sam B. Lambert is president of Lambert-Graves and C. E. Graves secretary and treasurer.

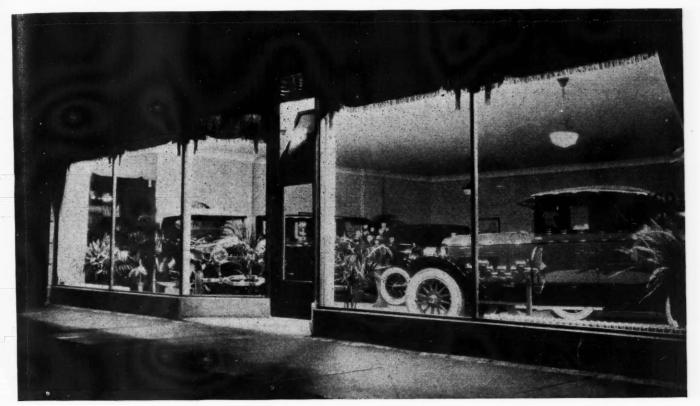
#### Chrysler Franchise Changes Hands

DALLAS, TEX., Aug. 30 — The Chrysler franchise in Dallas has changed hands. J. L. Green & Co. has taken over the retail activities in Dallas and vicinity, while a factory branch has been established to take care of the distribution in the Dallas territory. The Chrysler franchise in Dallas territory formerly was held by William Morris.

ti

#### Putnum Buys Out Fisher

CLINTON, ILL., Aug. 30-Otis Putnum has purchased the interests of his partner, Lyle Fisher. The Putnum Sales Company is the new name adopted, and the distribution of Chrysler cars will be continued. Some improvements are contemplated to the plant.



Window Display Number 6

Charles J. Dempsey, 4700 W. Washington Blvd., Chicago, sends us this excellent window display. The picture, taken at night, is impressive in its silhouette effect of blacks and whites and the cars are shown to advantage to the passer-by. The displays are coming in nicely, but we can always use more. Send yours.

# Moto Meter Net for First Half \$655,853

NEW YORK, Aug. 25-Net income of the Moto Meter Co. Inc., and subsidiaries for the first half of 1927 was \$655,853, including National Gauge & Equipment Co., against \$1,094,852, excluding National Gauge & Equipment, in the first half of 1926. Earnings in the second quarter, including National Gauge & Equipment, were \$335,704, as compared with \$572,636, excluding National Gauge & Equipment, in the second quarter last year. Earnings of National Gauge & Equipment are available as dividends on the common stock to Moto Meter after dividends on National preferred stock have been paid.

#### Has New Home

PROVIDENCE, R. I., Aug 31—Belcher & Loomis Hardware Co. will occupy its new service building Feb. 1. The building covers an area of 35,000 sq. ft. and is 4 stories; 15,000 sq. ft. of the first floor front will be devoted entirely to displays of merchandise. There will be room on the property for parking of 35 customers' cars, providing particularly advantageous service to the counter trade.

#### \$100,000 Tourist Garage

DUBUQUE, IA., Aug. 31—The Fischer Investment Co. of this city has announced plans for the construction

of a 500-automobile garage at Fourth General Tire Co. Sales St. and Central Ave., to cost \$100,000. It will be a two-story building and plans are to have it ready for opening in April of next year. It will be designed and operated principally for tourist trade.

## Not Subject to Tax

TRENTON, N. J., Aug. 29-Motor vehicles owned by the state, counties or municipalities are not subject to the provisions of the gasoline tax of two cents a gallon approved by the 1927 legislature. It has been held by the Attorney General's Department. The opinion was furnished by Motor Vehicle Commissioner Dill, who sought a ruling following receipt of inquiries as to the exemptions allowed under the act.

# Rim Runner Run In

A MOTORIST who persisted in driving his car with one tire missing after he had been warned by a policeman not to run on the rim and to get another tire before he moved the car, paid the Willimantic, Conn., town court \$7.15 for so doing. He was charged with operating an improperly equipped automobile.

# Increase 67 Per Cent

AKRON, Aug. 27-A 50 per cent increase in dollar volume of sales is reported by the General Tire & Rubber Co. for the half year ended June 30 over the first six months of 1926. The gain in unit sales was 67 per cent.

A great deal of new business has been obtained by General tire dealers in the past few months through operation of the recently inaugurated credit plan, sponsored by the company. Payments on tire and tubes purchased in this way are handled direct through the dealers, without the aid of finance companies.

On the basis of current sales, General's total volume for the year will be close to \$30,000,000, compared with \$20,100,000 last year. Earnings have increased proportionately, it is stated.

#### Mullins' Net Gains

NEW YORK, Aug. 31-Mullins Body Corp. reports July net profit of \$51,398 after depreciation and all charges, comparing with \$32,340 in July, 1926. Earnings in July, 1927, are after absorbing considerable expense in new development work.

Wilson Organizes Company

ASHEVILLE, N. C., Aug. 30-L. C. Wilson, veteran automobile dealer of this city, has organized the L. C. Wilson Co. and will handle G.M.C. trucks in this territory.

# Production and Sale Increasing

MICHIGAN

NDICATIONS are that passenger car sales in Michigan will be very satisfying for August. While sales in the state so far this year have been running considerably behind last year, indications are that the August volume, exclusive of Ford, will compare favorably with August, 1926.

Dealers in all lines throughout the state, while reporting a good demand for cars, state that the prolonged delay in introducing the new Ford car has tended to slow up sales in all lines.

SEATTLE

NEW car sales for Seattle and western Washington districts for the first first seven months of this year were 17 per cent less than for the same period of 1926. During the last few days there has been a pick-up in the business, due to public interest over new cars. Sales of Ford, Star and Chevrolet and the lower priced cars have been hampered by the public holding off to see what the new Ford will be like.

The brightest spot in the outlook in the Pacific Northwest is the splendid wheat crop, which will run 110,000,000 bushels and will net the farmers \$30,000,000 more than last year.

MINNEAPOLIS

THE automotive business is getting into its stride again in the Northwest. Dealers universally report gaining trade and are optimistic as to prospects for the fall and spring. Some distributing houses report they cannot give dealers in standard line as many cars as they ask for.

Used car inventories are low, one reason being the business in new cars and tradeins has been lighter than usual.

LOS ANGELES

A UGUST sales of southern California are expected to fall slightly under August of last year and about parallel with July. Total registration figures do not reflect actual market strength, an inability to make deliveries on new models has caused substantial amount of unfilled orders. New stocks are generally low.

Marked betterment reported in truck market with prospects continued increasing demand after unusually slow period.

CINCINNATI

N spite of a general decrease in motor car sales in August, the month's total registrations show a decrease of only 10 per cent compared with the first 25 days in August, 1926, as against a decrease of 14.4 per cent for the full month of July compared with last year. General business is good, financial conditions are sound and optimism prevails in the banking district.

NEW ORLEANS

CHECK of the automotive situation A in New Orleans at the present time shows a steady improvement though gradual in the industry as a whole. This is due to the rehabilitation work in the flooded areas of the state. It is believed that there will be a decided improvement when actual compensation checks are awarded to flood sufferers.

(Continued from page 9)

Dealers have at last worked down their used stock and this phase of the industry is in better condition here than at any previous time. New model cars have been taken exceptionally well by the public. There seems to be a general slackening of sales with cars having a price range from \$600 to \$900.

MILWAUKEE

PASSENGER car business has undergone further stimulation by the announcement of new models by leading makers, although numerically sales continue to fall below a year ago because of the absence of Ford business. July sales were 7821, compared with 10,842 in the same month last year, but the decline is accounted for largely by the fact that Ford Sales have dropped.

The fact that Chevrolet declined from 2328 a year ago to 1908 this year and the decline in total sales amounted to 3021 indicates that other makes have gained.

BOSTON

SALES conditions in the Boston territory for August were reported as averaging fair. With the new car announcements out of the way those who had been waiting had a chance to make up their minds, and the salesmen were able to close up orders. Revision of prices downward on a few of the large production units helped some.

ST. LOUIS

RETAIL automobile sales in this district are still slow. Automobile men look for little betterment until the new Ford is out, which will remove a serious sales resistant. Prospective buyers of all lines of automobiles refuse to buy until they see what the new Ford is going to be like.

Sales in St. Louis and St. Louis county for the first six months of the year were only 5.25 per cent lower than sales for the corresponding months of 1926.

> Connecticut Town Collects from 31

HARTFORD, CONN., Aug. 29-Some idea of how town courts can be made to work is had from the statement that 31 car drivers passing through the town of Farmington were arrested for violation of the law because their cars were not equipped with windshield wipers. In each case, a fine of \$1 was imposed, while the costs were \$13 in each case. The law requiring a windshield wiper, either hand or otherwise operated, became effective July 1, and it has been very easy picking for the towns, as witness the above.

KANSAS CITY

UTSIDE of the light class field the situation for the month has been very encouraging. Several companies report substantial gains over July and some have marked up new records for the year. The new model Buicks, Oaklands, Dodges, Studebakers, Nashes and others have been moving well. Buick and Oakland sales have been especially strong. The new Paige also has been creating much favorable interest.

Chevrolet sales continue to lead the field in spite of the losses in the light car field.

SAN FRANCISCO

San Francisco distributors and dealers estimate passenger car sales for August in northern and central California are about 15 per cent better than those of the same month last year and 10 per cent better than July this year. Market very slow on used cars except for rebuilts with dealer's guarantee.

Trucks moving better than last month and about 20 per cent better than one year General business conditions only

**CLEVELAND** 

S TAGNANT conditions prevail through Cleveland and vicinity for August with practically no difference over July. A possible shrinkage has been detected on August sales compared to July conditions and apply both to new and used car sales and accessories. September is not expected to bring any increase and it is predicted that a new low might be reached in September.

The increase, though, of current months against those of 1926 is still maintained. With the passing of September brisk conditions are expected.

ATLANTA

UE to a steady improvement in general Dusiness conditions in this district the past month, and an easing of the financial situation occasioned by the high prices prevailing for most of the important southern crops, automotive sales have shown a decided turn for the better with the result that most dealers and distributors enjoyed a good increase in sales during August this year as compared with the same month last year.

As regards the outlook it is the best for fall trade in the automotive field in some three or four years.

DALLAS

REPORTED improvement in cotton crop conditions and heavy increase in prices of the staple produced more optimistic feelings in automotive circles in Texas and parst of Oklahoma, Arkansas, Louisiana, New Mexico and Arizona during August. Farmers, bankers, merchants, industrial and professional men believed more money will be in circulation for the remainder of the year than for several years past.

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Most lines of business showed some improvement, automotive business included, and the year passed into the ninth month with bright prospects for dealers.

# Small Tool Sales Heads Will Meet

G. M. D. Shop Equipment Division Calls Conference Sept. 8 at Pike, N. H.

CHICAGO, Aug. 29—Sales executives of the small tool manufacturers have been asked to attend a conference at Lake Tarleton Club, Pike, N. H., Thursday and Friday, Sept. 8 and 9, by Martin E. Goldman, manager of the shop equipment division, Greater Market Development of the Automotive Equipment Association.

The shop tool trade, now doing an approximate business of \$5,000,000 a year, recognizes the importance of an immediate campaign to broaden interest and markets for hand and precision tools, according to Mr. Goldman.

This meeting will afford opportunity for presentation of facts concerning hand tools and their markets gathered by the shop equipment division. Harry G. Moock, managing director of G. M. D., will attend the meeting and give the result of his observations of outlets based on his trips throughout the United States in the last four months studying distribution methods.

The meeting also will allow the shop equipment division to obtain veiws of tool makers on development of markets and the sales of hand tools. It is expected that the meeting will include a complete presentation of all distribution problems, and exchange of ideas and experiences by the manufacturers and the determination of an active program on small tools to be instituted by the shop equipment division of G. M. D.

# N. C. Car Registrations Increased by 71,462

RALEIGH, N. C., Aug. 29—A total of 71,462 more motor vehicle licenses have been issued in North Carolina this year than on the same date last year, according to figures made public by the automobile license bureau of the department of revenue.

The figures show that 386,481 motor vehicles had been licenses to Aug. 19, 1927, as compared to 315,019 on the same date last year.

#### Smith Made Director

MILWAUKEE, Sept. 1 — Jesse A. Smith, president of the Jesse A. Smith Auto Co., Wisconsin distributor for Hudson, has been elected a vice-president and director of the Vacuum Can Co., Chicago.

CLEARWATER, FLA., Aug. 31—Arthur W. Jordan, Newton Brown and J. Wesley Nash have secured a state charter for the Brown-Chevrolet Co., Inc., and will engage in a general automobile business.

# Ten Good Questions From Ten Good Fellows

We have a full Roll of Honor in this week's quiz. Allow us to introduce the Constant Readers who supplied the questions AND answers. We have with us this evening: Dick Taylor, of Philadelphia; Matt Dittman, of the same live city; Mac Maginnis, of Cleveland; our old friend, G. E. Lantz, of Boston, who started the ball rolling; Bruce A. Swann, of Buffalo; John Hines, of Syracuse; L. C. W., of Philadelphia, a regular contributor to Motor AGE and one of the best of good fellows; C. K. B., of Detroit, who wears his new Knox hat so you'll know him; F. J. R., of Chicago, an expert manipulator of statistics; and J. L. A., of Indianapolis. Send YOUR questions AND answers to the Editor and join the ranks of the Good Fellows.

1. Fill in the missing word in the sentence, "..... Tools Make Better Mechanics."

(Asked by D. C. Taylor, Philadelphia, Pa.)

What well known automotive accessory is identified by the phrase, "Relaxed Motoring?"

(Asked by Matt Dittman, Philadelphia, Pa.)

3. What is Opex?

(Asked by A. J. Maginnis, Cleveland, O.)

4. Who won the ten-mile World's Motor Championship at the Pan-American Exposition in 1902, and what make of machine was used?

(Asked by G. E. Lantz, Henshaw Motor Company, Boston, Mass.)

5. By what name was the first Pierce-Arrow automobile known, and when was it completed?

(Asked by Bruce A. Swann, Buffalo, N. Y.)

6. When and by whom was the first six-cylinder engine and first seven-bearing crankshaft produced in America?

(Asked by John Hines, Syracuse, N. Y.)

7. What is the best-known stimulant to the automotive trade? (Asked by L. C. W., Philadelphia, Pa.)

8. The Hudson Super-Six has high compression for an engine using regular fuel. What's the cause of that?

(Asked by C. K. B., Detroit, Mich.)

9. What prominent automobile manufacturer is in great demand as a public speaker?

(Asked by F. J. R., Chicago, Ill.)

10. What automobile recently finished a 15,000-mile test under A.A.A. auspices and established new stock car records for 5,000, 10,000 and 15,000 miles?

(Asked by J. L. A., Indianapolis, Ind.)

# ANSWERS TO AUG. 25 QUESTIONS

"It Won't Shake Loose" is a slogan applied to the "Chapnut," manufactured by the National Nut and Bolt Company, North Easton, Mass.

2. "It's the coil that does the trick" identifies Gabriel Snubbers.

- (Asked and answered by Herman P. Schade, Philadelphia, Pa.)
  3. Oakland Motor Car Company uses a sightseeing bus to show visitors through the new Pontiac plant at Pontiac, Mich.
- 4. H.P.  $=\frac{D^2 \times N}{2.5}$  or, in other words the bore times itself, times the

number of cylinders, divided by 2.5. Displacement =  $D^2 \times .7854 \times S \times N$ . Here D is the bore, S the stroke,

and N the number of cylinders.

6. The Cadillac Motor Car Company published the institutional advertisement, "Penalty of Leadership," has republished it several times since and has allowed many other manufactures, merchants and professional men to use reprints of it.

(Asked and answered by L. B. Dimond, Cadillac Motor Car Company, Chicago, Ill.)
7. "Equipoised" is defined as "evenly balanced; weight, power or force equally distributed; brought into perfect equilibrium." It was first used in automobile advertising to describe the new Peerless Eight introduced in November 1924. The idea of applying the term to an automobile was originated by the then Advertising Manager of Peerless, John Cleary, now Editor of Motor Age.

(Asked and answered by A. H. Dreher, Cleveland, O.) Ans. The area of a circle equals the diameter squared divided by .7854.

Ans. The area of a circle equals the diameter squared divided by .7854.
 Ans. The circumference of a circle equals the diameter times 3.1416.

10. After Dodge Brothers, comprising John and Horace Dodge, had manufactured the vital parts for Ford over a period of several years, they discontinued their association with him in order to market their own car.

(Asked and answered by G. E. Lantz, Henshaw Motor Company, Boston, Mass.)

# Names Executives In Overseas Plant

Litchfield Announces Officials of Goodyear's English Tire Factory

AKRON, Sept. 1-Rapid progress is being made toward perfecting the organization which will operate the new Goodyear Tire & Rubber Co. tire factory in England.

Pres. P. W. Litchfield has named to date the following executive personnel: Charles P. Skinner, England, managing director; Tom A. Linnane, Akron, general superintendent; Robert T. Brown, Canada, development; Paul H. Sullivan, California, administration; Ed Sheahan, California, Division A; W. D. LaDue, Akron, engineering; E. G. Wortman, Akron, engineering. Several of those named are now in England, preparing for the installation of tire making equipment. Others will sail in September and October.

## Chandler Has New Emblem

CLEVELAND, OHIO, Aug. 31-An emblem reproduced from the gold cup trophy won by the Chandler-Cleveland Motors Corp. in a record-breaking climb of Mount Wilson in California, will appear on the radiator of all 1928 series Chandlers.

The device is in the shape of a shield outlined in gold. The loving cup is embellished on the shield.

### Dine Harry Snyder

DANVILLE, ILL., Sept. 1-Members of the Danville Automotive Dealers' Association gave a farewell dinner this week for Harry Snyder, who for eight

### Special!

ELSEWHERE in this issue of Motor Age you will find a special FOUR VOTE coupon in the jobber salesmen's Popularity Contest. Don't fail to use it. Make it work for that particular wholesale salesman whose efficiency is deserving of recognition in this interesting \$2,075.00 cash contest.

years has been head of the association. He is leaving to become assistant automotive engineer of the Big Four railroad with headquarters in Indianapolis, Ind.

### Western Auto Supply Co. Net Profit Is \$343,855

NEW YORK, Sept. 1-Western Auto Supply Co. reports for the six months ended on June 30 a net profit of \$343,855 after all expenses but before Federal taxes. After deducting estimated taxes, the balance is equivalent to \$5.40 a share on the 55,000 shares participating preference stock, against regular dividend requirements of \$1 a share for the period.

The company reports that on June 30 it had current assets of \$3,699,917, of which \$1,529,165 consisted of cash and United States Government bonds. Total current liabilities amounted to \$595,536.

### Lewis Distributes Hood Tires

HOUSTON, TEX., Aug. 30-A. B. Lewis has been appointed distributor for the Hood tires in Houston and territory. The company will have charge of 40 counties in the southern and southeastern section of the state.

# Star Dealers Slash Financing Charges

Chicago Scene of 30-Day Trial Which Cuts Rates By 50 Per Cent

CHICAGO, Aug. 27-Cutting financing rates one-half, Star dealers in Chicago have inaugurated a 30-day experiment campaign which, if successful, may be instituted in other cities by the Durant forces.

Star financing rates, through the Consolidated Finance Co., a Durant owned concern, formerly were approximately 12 per cent of the unpaid balance and did not include fire and theft insurance. New rates are approximately 6 per cent and include both fire and theft insurance without further charge.

Initial payment, however, has been increased from 33 1/3 per cent to 40 per cent, with ensuing payments due over a period of either six, eight, ten or twelve months.

Dealers throughout the city report increased sales of 25 to 50 per cent in the three days since the campaign was instituted.

# Indiana Truck Sales Gain MARION, IND., Aug. 30-Factory

shipments of Indiana Truck Corp. in July increased 44 per cent over July last year. The company has opened a factory branch at Tulsa, Okla.

Goad Motor Co. to Build

SAN ANTONIO, TEX., Sept. 1-Work has already started on clearing the site at Dallas and Lexington Aves. for the new home of the Goad Motor Co., Cadillac distributor.

\*Will have special shop equipment exhibit.

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# What's Coming in Motordom

# Automotive Equipment Association, Coliseum, Chicago ... Nov. 7-12 Baltimore ... Jan. 21-28 Boston, Aviation and Radio Exposition Sept. 26-Oct. 1 Brooklyn, Brooklyn Motor Vehicle Dealers Association ... Jan. 21-28 Buffalo ... Jan. 14-21 \*Chicago, National Automobile Chamber of Commerce, Coliseum, Jan. 28-Feb. 4 Chicago, Chicago Automobile Dealers Association ... Jan. 28-Feb. 4 Cincinnati, Music Hall ... Jan. 14-21 \*Cleveland, Public Auditorium ... Jan. 21-28 Columbus ... Jan. 14-21 \*Dallas, Texas, Automobile Building, Oct. 8-23 Denver ... Geboom ... Feb. 13-18 SHOWS

### Coming Feature Issues of Chilton Class Journal **Publications**

Sept. 15-Bus Show Issue-Operation & Maintenance.

Sept. 20-Bus Show Issue-Commercial Car Journal.

Oct. 1-Production and Factory Equipment Issue - Automotive Industries.

Nov. 10 - Marketing Annual -Motor World Wholesale.

Rochester, N Y............Jan. 23-28
Salon, Automobile Salon, Inc., Hotel
Drake, Chicago ......Jan. 28-Feb. 4
Salon, Automobile Salon, Inc., Hotel
Biltmore, Los Angeles .....Feb. 11-18
Salon, Automobile Salon, Inc., Hotel
Commodore, New York. Nov. 27-Dec. 3
Salon, Automobile Salon, Inc., Hotel
St. Francis, San Francisco,
Feb. 25-March 3
Salon, Los Angeles Motor Car Dealers
Association, Hotel Biltmore. Oct. 18-21
San Francisco .....Jan. 28-Feb. 4

Automotive Electric Association, Buckwood Inn, Delaware Water Gap. Pa. Sept. 12-14
Automotive Equipment Association, Coliseum, Chicago Nov. 7-12
National Association of Finance Companies, Congress Hotel, Chicago, Nov. 14-15 National Automobile Dealers' Association, Ohio Council, Cleveland, National Standard Parts Association,
Hotel Hollenden, Cleveland, Nov. 14-18
National Tire Dealers Association,
Brown Hotel, Louisville, Ky. Nov. 15-17
Pennsylvania Automotive Association,
Johnstown, Pa. . . . . . . Sept. 19-20
S. A. E.
Chicago, October—National Transportation 

# 140,000 Tires Daily Akron Production

Ford Orders Indicate He Will Make 1000 Cars Daily— July Sales Good

AKRON, Sept. 1—Automobile tire production continues at a high rate in the Akron district, with no signs of any let up in the near future. While dealers are not buying quite as heavily as they did last month, the increased demand from car manufacturers for original equipment has kept the rubber factories operating almost at peak levels.

More than 140,000 tires a day are being manufactured by Akron manufacturers. Several companies, including Goodrich, Firestone, Goodyear, and General, broke all previous production records in July, and ahead of schedules

again this month.

July sales exceeded most expectations and all previous monthly records, and business during the current month has so far been even better. It is confidently predicted by leaders in the industry that tire sales for the third quarter will mount to new high figures.

Shipments of casings and tubes to car makers, especially the General Motors units, have been accelerated within the past few weeks. Advices received here from the Ford company indicate that the plant will resume operations on a fairly large scale early in September, taking fully 4000 tires a day. Large orders from Ford have recently been received by the Firestone, Goodrich, Goodyear, and Mason companies. Harvey S. Firestone is closely allied with Henry Ford, and his company probably will get the bulk of the Ford business.

## Service Men Meet

OLYMPIA, WASH., Aug. 30—The Studebaker service managers' club of northwest Washington and British Columbia met here during the week. Thirty members were present from as far east as Yakima and Wenatchee and north from Vancouver and Victoria, B. C. W. J. Evans, of the Bendix company, South Bend, Ind., was the principal speaker.

#### Maffett Takes On Oakland

ATLANTA, GA., Aug. 30—F. E. Maffett, who for the past nine years has been one of the most prominent figures in automobile sales and service in this section of the country, has taken over the dealership for Oakland-Pontiac cars in this territory.

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## Klove Builds New Garage

ROCK ISLAND, ILL., Aug. 29—Ground has been broken for a new garage at the corner of Fifteenth St. and Fourth Ave., by A. M. Klove, the plant when completed, to be occupied by R. P. Galbraith.



YES SIR," said the salesman, "this sure is a wonderful used car. Don't see how we ever got it. The owner bought a bigger one. That's the reason. Sure is perfect, isn't it? Bargain at \$780."

"Well," answered the prospect, "it's all right apparently. I guess we—"

"Just a minute," said the salesman. "First I want to show you the luxurious upholstery. Get in and set on it a

minute. Great, ain't it. The nuts. And them windows don't rattle neither. Good as the day they was put in at the factory. French plate glass it is. Look at them tossels on the curtain. Can you beat 'em? You sure can't. It gets me why the feller traded in a car as good as this. Take a glance at the speedometer. Only 10,000 miles on it. Good buy, ain't it?" "Yes," said the prospect, "I guess—"

"Yes," said the prospect, "I guess—"
"Pardon me just a second," interrupted
the salesman. "Before I forget it I want
to show you the engine to this baby. It's
the nuts. Listen at it. Pops off first time
I hit the starter. If I didn't have a car
of my own, I'd buy his baby. Listen to
her percolate. Perfect, ain't she?"

"Yes," said the prospect desperately, "she's a good buy all right. I guess I—"

"Excuse me," again interrupted the salesman, "I just noticed this wagon has got a Frigid heater. Must have been put in new last year. You can't expect anything better than a Frigid, can you? Ain't any better made. Be the nuts for a cold day. Good windshield wiper, cigarette lighter and good rubber. Say! why don't you buy this car?"

"Why in hell don't you let me buy it?" asked the prospect, savagely. "I been tryin' to buy it for the last 10 minutes. An' I darn near decided to walk off an leave you flat. I ain't got all day to listen to you."

Never talk a prospect past
the selling point. Give him
a chance to buy when he's
ready.

Old Doc Jurnover B.D.
(Business Doctor)

### Eastland Takes on Paige Line

DALLAS, TEX., Sept. 4—A. M. Eastland, for years connected with the Dodge agency in Dallas has taken over the Paige-Jewett agency in Dallas and vicinity, it is announced by the Paige-Jewett factory branch here. The Paige-Jewett lines formerly were handled in Dallas by the Filgo Motor

# Ford to Build New Truck—Ready Soon

Vehicle to Replace Model T Has Doubled Power and New Transmission

DETROIT, Sept. 1—The Ford Co. will replace the Model T line of trucks with a new model, this fall, it was announced today. The new product will incorporate the same principles of motor and chassis as the new passenger car, according to the statement issued by the company, which follows:

"The new truck will replace the present Model T Ford truck. It will have double the horsepower of the present model and, like the new Ford car, will be equipped with improved cooling and ignition systems and new steering and

transmission mechanisms.

"This new truck is a development of the same series of experiments which brought the new Ford automobile. For several years Ford engineers have been studying the changing conditions under which commercial vehicles have been operating. The new Ford truck is a product of this study and of the years of experience with the Model T truck in a wide variety of commercial and industrial transportation fields.

"The manufacture of replacement parts for the large number of Model T trucks still in use in this country and abroad will continue as long as there is any demand for these parts,"

Chandler Dealers Convene

SAN FRANCISCO, Aug. 29—Specially called together to discuss sales plans and to view the new models, 65 Chandler dealers from northern California held an all-day convention in the offices of the Chandler-Cleveland Motor Car Co. of California, under leadership of K. C. Webster, president of the corporation.

#### Eierman Leaves Industry

MILWAUKEE, Aug. 30—Rudolph H. Eierman, for many years retail sales manager of the Jesse A. Smith Auto Co., Milwaukee, Hudson and Essex distributor, has resigned to become associated with the Milwaukee office of Henry L. Doherty Co., investment securities.

#### Found Lillington Co.

LILLINGTON, N. C., Aug. 29—Lillington Motor Company has been chartered for a general automobile business. Authorized capital stock is \$25,000, with \$4,000 authorized by O. S. Atkins and H. T. Atkins, of Lillington, and L. M. Edwards, of Durham.

#### Long Builds New Home

GREENVILLE, S. C., Aug. 30 — Work on a two-story \$25,000 automobile sales and service station for George W. Long will start within the next few days.



U.S.L. Holds Annual Sales Convention

From 1400 service stations in 1921 to more than 14,000 service stations and dealers in 1927 tells the story that caused unprecedented enthusiasm among the 300 USL central distributors, shown above, who gathered for the annual sales convention at the plant of the U.S. Light & Heat Corp., at Niagard Falls, N. Y.

# Coast Tire Plants Cost \$12,000,000

AKRON, Aug. 27—Construction of branch factories by the B. F. Goodrich Co. and the Firestone Tire & Rubber Co. in Los Angeles, Calif., is being speeded up, so that these units will be manufacturing tires for the western trade early next year, according to Goodrich and Firestone officials here.

Tire sales on the Pacific Coast have grown by leaps and bounds in the past few years, so that expansion in that territory was almost imperative, it is stated. Considerable saving will be made, too, by elimination of excess freight charges. Most of the crude rubber, it is believed, will be brought to these factories from the Far East via the Pacific

Firestone is spending approximately \$7,000,000 on its Pacific Coast development and Goodrich about \$5,000,000. Each factory will have a capacity of around 5000 tires a day.

# Government Will Pay Only for Actual Storage Time

WASHINGTON, Aug. 31—A decision by the office of the United States Comptroller General announced in the case of United Fireproof Warehouse Co. of Milwaukee, Wis., vs. U. S., is that the government will only be responsible for rent for actual time vehicles seized by the prohibition forces are stored and garagemen cannot charge the government for a full month where the truck is stored for less than a month.

A claim of \$208.41 was denied the

company which had agreed to store trucks by the month and made a rate of \$6 per month on a monthly basis. Where a part of a month storage was used, the company contended that the rate would have been higher. This the government, however, has declined to pay.

## Borg & Beck Net Gains

NEW YORK, Aug. 23—Borg & Beck Co. reports net profit for July of \$88,612 against \$50,912 in July, 1926, after all charges. For the first seven months of the year, the net profit was \$605,719, against \$505,657 in the same period last year.

President Borg recently announced that the Borg & Beck Co. has purchased 1000 more shares in the open market, making the total holdings 11,000 shares of the 125,000 outstanding.

# Averages 15 m.p.h. In Six-Hour Run

CLEVELAND, Aug. 30—J. F. McNutt, of here, made a fast night run to Warren, Ohio, a few evenings ago. He left Cleveland at 8 p.m. and reached his destination at 2 a.m. The distance is a trifle over 95 miles. The vehicle was one of the New York & Ohio Company's regulation gasoline Packard carriages.—From Motor Age, August 23, 1900, twenty-seven years ago.

# Du Pont Capital Change Rumored

NEW YORK, Sept. 1—The directors of E. I. du Pont de Nemours & Co. caused some surprise recently by declaring only the regular quarterly dividend of \$2 a share on the common stock.

As du Pont has usually passed on to its stockholders benefits accruing from its ownership of 1,996,224 shares of General Motors stock, some change in the capital structure of the company was looked for. However, it develops that the authorized stock of du Pont will not permit a two-for-one split-up, such as General Motors has announced, on the authorized 5,000,000 of du Pont no par value common stock, of which 2,661,658 shares are outstanding.

It is believed that at the next quarterly meeting the directors will put into operation plans for a change in the capital structure of the company.

# Warren-Nash Opens New \$1,500,000 Building

NEW YORK, Aug. 29—Warren-Nash Motor Corp. today opened, with appropriate ceremonies, a new building at Broadway and 133rd Street, which cost \$1,500,000 and is eight stories in height.

Although constructed primarily for maintainance of Nash cars in the New York territory, there is a showroom on the first floor which will carry a full line of new Nashes as well as 40 to 60 used cars. The service departments are equipped throughout with the most modern machinery.

# Ochsenreiter Heads National Salesmen

Washington Man Aided by Allison, Matthews, Britt and Reily

WASHINGTON, Aug. 25-Eugene Ochsenreiter, salesman for the Semmes Motor Co., was this week chosen president of the National Automotive Salesmen's Association, holding its first annual election of officers and executive committee. The organization was organized by a group of automobile salesmen, agents and distributors, with an idea of forming a national organization of the men who actually sell the cars and trucks of the industry.

W. C. Allison, of the Stanley H. Horner, Buick agency, was elected first vice-president; W. G. Matthews, Mack International Motor Truck, second vicepresident; L. L. Britt of Mott Motors, Inc., Hupmobile distributor, third vicepresident. Phil Reily was elected chairman of the executive committee, in hands of which rests the direction

of the body's affairs.

In addition to the officers named, the executive committee also includes Bert Robertson, Wallace Motor Co., Washington Nash distributors; Charles Barnes, Universal Motor Co., Ford agency, and J. W. Flaherty, Wallace Motor Co.

## California Association Celebrates 20th Birthday

SAN FRANCISCO, Aug. 30-The California State Automobile Association celebrated its twentieth birthday anniversary Aug. 17. The transition of the individual "automobilist" of 1907, struggling against odds of prejudice, neglect, and no highways, to the status of a motor traveler de luxe, whose every wish is anticipated in California, was outlined as the greatest accomplishment of the organization by Burton A. Towne, president of the association.

> Three-Wheeler Makes 50 m.p.h.—Occasionally CLEVELAND, O., Aug. 30-The 15-year-old owners of a three-wheeled machine-claimed by them to be an automobile, have obtained a license for their machine from the Cuyahoga County automobile license bureau. The alleged automobile was assembled from parts taken from an old car, a motorcycle and a wagon, and cost \$15. It has a chain gear, two cylinders, and a speed of 50 miles an hour-not guaranteed.

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# Ford Thought He Had a Fair Chance

BOSTON, Aug. 31 - Vice-Pres. Robert C. Graham, of Paige-Detroit, in a talk to his New England dealers last week, said that years ago when Henry Ford was struggling along with a small force, and the men worked long into the night without considering that it was worth anything extra, one of his employees said one night, "Mr. Ford, do you think we have any chance to catch up to some of those other fellows who are going big just

Ford turned to the man and asked, "What time is it?"
The man replied, "It is 1.30."

"Oh! Is that all? Well, if we keep going like this right along we have a chance to do a little catching up while the other fellows are in bed."

## Kingsley-Miller to Move

CHICAGO, 30-Kingsley-Aug. Miller Co., manufacturer of monogram radiator caps, gear shift balls and radiator ornaments, after Sept. 6 will consolidate offices and factory under one roof. Factory space will be considerably increased.

The new office address will be changed from 600 West Jackson Blvd. to 625 West Jackson Blvd. The change, company officials believe, will bring about many advantages in both office and factory management. Additional space will permit larger output.

Buys Loxrite Rights

GRAND RAPIDS, Aug. 29-Attwood Brass Works has announced the purchase of all manufacturing rights to Loxrite radiator caps formerly controlled by the Loxrite Corp. and Wolverine Metal Specialties Co. B. H. Cook, sales manager, states that production and sale of product will be increased. The Attwood works also manufactures automotive body hardware.

Transport Adds Three to Staff

SPOKANE, Wash., Aug. 29-Three new salesmen were added recently to the staff of Transport Motor Co., according to E. P. Olson, sales manager. E. J. Vicain, after 16 years of selling Willys-Knight and Overland cars, came to Spokane recently from San Jose to join the company's forces. D. L. Williams and M. J. Hogan, both formerly with the March-Strickle Motor Co., also joined the company's force.

Wallace Raynor Sales Head SEATTLE, WASH., Aug. 31—Ben Wallace, who has been connected with the Raynor Motor Co., has been advanced to sales manager.

# 100-Passenger Plane One-Third Finished

Mammoth Carrier, Ready In Spring, Rivals Planned Ford Craft

NEW YORK, Aug. 31-Following closely the announcement of Henry Ford's new 100-passenger plane, as reported in the Aug. 25 issue of Motor Age, came the news, authenticated by a staff correspondent of the Chilton Class Journal Co., of another passenger airplane to seat 100, that has been under construction at Garwood, N. J., since last February and will be finished next spring. Alfred W. Lawson, designer of the largest passenger airplane in this country, seating 34 passengers, is the designer of the new plane. The new airplane, one-third finished now, is equipped with 12 motors, having 4800 hp. and weighing 100,000 pounds.

"My plane is designed to earn for its operators as much money as an efficient railroad service," Lawson said, in a recent interview with a newspaper reporter. It will run night and day, rain or shine, through wind, fog, storms and cyclones. I shall offer it first to the government for use as a troop ship, and then sell the plans to others.'

# Club Looks Into Hartford Gasoline Price Situation

HARTFORD, Conn., Aug. 31-Having completed its investigation of the retailing phases of gasoline prices in Hartford, the Automobile Club of Hartford will devote its efforts to the refining and distribution phases. It has been disclosed that reliable grades of gasoline are being purchased in quantity at 121/2 cents per gallon, tax paid by companies not dispensing fuel for profit. The quantities involved, however, do not exceed what a popular filling station would dispense over the week-end, and this gas is handled on a two-cent margin carrying charge.

> New Zealand Takes 18,024 Cars in 1926

> WASHINGTON, Aug. 30-American manufacturers of automobiles did 86 per cent of the total import business into New Zealand during 1926, according to import figures supplied by that government to the U.S. Department of Commerce. A total of 18,024 cars were imported during the year. The United Kingdom supplied 111/2 per cent and other European manufacturers 21/2 per cent, the remainder being of American Manufacture.

# Brockman Names Assn. Committees

# Many Prominent St. Louis Car Dealers in 13 Groups Appointed

ST. LOUIS, Aug. 30—Phil Brockman, president of the St. Louis Automobile Dealers' Association, has announced the appointment of 13 standing committees of the organization to cover its various activities.

The members of the committees are: Used Cars, G. W. Oliver, chairman; Edward Weber, vice-chairman; G. E. Bleil, D. E. Castles, G. A. Krause, P. H. Wells, C. H. Tevis.

Junk Yards, George Weber, chairman; F. C. Meyer, vice-chairman; C. W. Pfirmmer, J. J. Benjamin, G. M. Berry, F. W. A. Vesper.

Berry, F. W. A. Vesper.
Legislative, F. R. Tate, chairman;
E. L. Kuhs, vice-chairman; S. C. Igou,
F. J. Harmon, O. E. Nonn, C. S. Williams.

Arbitration, J. D. P. Lewis, chairman; E. A. More, vice-chairman; E. S. Mills, W. L. Johnson, Roy B. Lively. Statistical, R. C. Framton, chairman; G. M. Berry, vice-chairman; I. C. Hunter, B. P. Ford, W. H. Vesner

Hunter, B. R. Ford, W. H. Vesper.
Program, A. E. Archer, chairman;
H. F. Cartwright, vice-chairman; O.
H. Perkins, A. J. Brock, G. T. Willett.
Membership, L. M. Stewart, chairman;
H. J. Schnure, vice-chairman;
L. P. Hambeuchen, W. N. Love, C. E.

Attendance, W. H. Willcockson, chairman; H. W. Kardell, vice-chairman; Frank Flint, Edward Weber, W. S. Roberts

Graves, Willis Brodhead.

Reception, G. H. Schelp, chairman; A. E. Spielberg, vice-chairman; Joseph Steinger, R. H. Brock, Frank Flint, H. P. Riefling.

P. Kiefling.
Public Safety, W. H. Owen, chairman; W. A. Elliott, vice-chairman; E. C. Meissner, F. J. Foster, R. L. Samuel.

Constitution and By-Laws, F. C. Mc-Donald, chairman; F. R. Tate, vice-chairman; Harold McCarthy, Clyde Erskine, G. W. Oliver, R. C. Frampton.

Resolutions, William Walsingham, chairman; L. M. Stewart, vice-chairman; J. M. Lederer, F. E. Stevens, E. A. Hatfield.

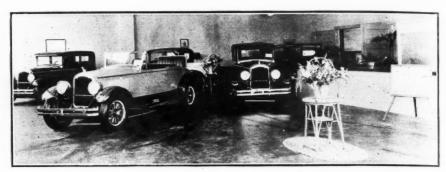
Gasoline Tax, P. H. Brockman, R. E. Lee.

### Charles H. Fisher

LANSING, Aug. 29—Charles H. Fisher, engineer and superintendent of the maintenance department of the Olds Motor Works, died recently of injuries he received while inspecting a punch press in the factory.

#### Puts on More Contests

SPOKANE, WASH., Aug. 29—In order to stimulate interest in sales, L. J. Burrows, Inc., Oakland-Pontiac dealer, has announced a contest for its



# Blackwell Opens Branch House

The title above is about the way the headline of a story would read, so it should be all right for a news picture. This illustration shows the beautifully designed new Lewiston, Ida., branch of Blackwell Motor Co., of Spokane, prominent distributor of Reo products

sales force; those making the required month's full quota will receive membership in the Spokane Air Derby Association. Merchandise prizes are also offered.

# Will Insure Members Against Runaway Horses

NEW YORK, Aug. 27—The organization of an automobile accident insurance company or association on practical but novel lines is in contemplation in this city.

Its object will be to insure its members or policyholders against accidents, such as runaway horses, etc.

The company or association will defend all such suits, which automobilers claim have become numerous on slight provocation throughout the country—From Motor Age, Aug. 30, 1900, twenty-seven years ago.

### Corpus Christi Co. to Build

CORPUS CHRISTI, TEX., Aug. 29—What it is said will be one of the most attractive and modern automobile sales and service buildings in the southwest is to be erected here this year by the Corpus Christi Oldsmobile Co.

# Employment Totals Shows Slight Drop

WASHINGTON, Aug. 31—A curtailment in employment throughout the automobile industry is reported from the automobile manufacturing cities in the August survey of employment conditions just announced here by the U. S. Employment Service of the Department of Labor. The rubber industry, in the main, is reported to be working full time. Road construction throughout the United States is at its peak.

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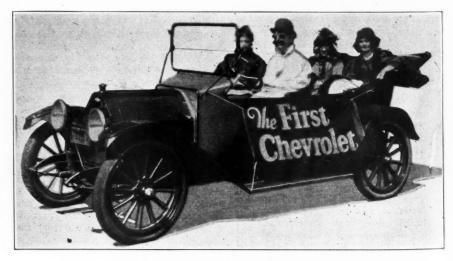
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Lack of employment in the automotive trades is attributed chiefly to the usual seasonal curtailment at this time of the year and to the preparation of plants for new models.

#### Downs Motor Co. Opens

JACKSONVILLE, FLA., Aug. 29—Doors of the new home of the Downs Motor Co., Chevrolet distributor, were thrown open to the public Monday morning. A formal opening is planned for the near future, according to Zed Downs, president of the company.



# Here's the First Chevrolet

The gentleman at the wheel of this first Chevrolet is evidently traveling incognito; maybe it's the Prince of Wales. They certainly made cars a whole lot more he-mannish in the old days

# Export Trade a Big Factor in Reo Gain

Many New Foreign Outlets Guarantee Even Greater Sales Totals

LANSING, Sept. 1-The export business of the Reo Motor Car Co. has been a big factor in the marked increase in sales of the company it was indicated here, this week, with the return of several of Reo's foreign trade representatives to the factory. With new foreign connections, export sales for the year will exceed any record made abroad so far by the company.

According to M. A. Waldo, European representative with headquarters in Berlin, business conditions in Europe are becoming more settled and the outlook for Reo business is good, especially for passenger cars. Reo commercial cars have always sold good on the continent, but the past two years has developed an increasing demand for Reo

passenger cars, he said. J. R. Blanco, West Indian representative, with headquarters in Panama, reports that business in the West Indies, Central and South America is good. While heretofore the closed car has not been much in favor in his territory there has been a growing demand for this type of motor car and he predicts that the region of the Equator will see a still stronger liking for closed automobiles in 1928.

Good car and truck business in the Dominion of Canada is seen by W. G. Cairns, western representative, and A. Legault, Montreal, eastern representative, who also visited the factory, who report that car business so far this year in the Dominion, has been very good.

### One-Day Auto Show

JACKSON, Tenn., Aug. 31-Six thousand people attended the one-day automobile show held at Humboldt, Tenn., Aug. 18, in connection with the celetration of the completion of Highway No. 5 through Gibson county. The show was held in Bailey Park. four new models were displayed by five dealers from Humboldt and Jackson. The dealers were: Cade Motor Car Co., Jackson, Dodge; Penn & Humphreys, Humboldt, Hudson and Essex; Yarbrough Motor Co., Jackson, Buick; John Johnson, Jackson, Nash; Bodkin Chevrolet Co., Humboldt, Chevrolet; and G. D. Dodson, Humboldt, Lincoln.

### Shipman Takes the Wheel

AUGUSTA, GA., Aug. 29-W. F. Shipman, new secretary and manager of the Augusta Automobile Association, has assumed his duties. He has been with the National American Automobile Association. The local organization will be directly associated with the national association.



#### By SAM U. L. SPARKS

WHEN you feel like giving someone a piece of your mind, it is most usually a good idea to give the matter a second thought, and then you will maybe save the pieces because you need them all yourself.

A lotta floor men remind me of the old codger in the Kentucky mountains which when he was ast how they pass the time, remarked that most generally they just set and think.

"And," says he, "sometimes we jest set."

"Money is a small matter with me," says the sheik as he walked down the avenue looking over the lots of used cars.



I see where considerable has been said about that guy Joe which give up setting around and studying the physiology of how to sell automobiles and went out and did some selling.

You can't deny that actions speak louder'n words. Nevertheless, I am a great believer in this Physiology of Salesmanship, but in the stead of trying to work any hokus-pokus on your prospects you had ought to do your practicing on yourself.

What I mean, maybe you have heard about what some people call the "lust for battle." Well, one of the big differences between a good automobile seller and one which ain't so good is that the not-so-good guy ain't got this here "lust" thing.

"As a man thinketh in his heart so is he." Somewheres in my wide reading I ran acrost that wise-crack. Ain't it the truth?

Some guys when they have sold maybe two or three cars in a week think, well, now I will go out and play a little golf, and then in a coupla days they maybe decide that it is again time to sell a car or two, and whilst they are looking around in vain for good prospects they decide that business is bum.



Me? When I sell a coupla cars, as I most generally do, I think, now I am beginning to hit my stride, and while I have this here "lust for battle" I go about radiating success, if you know what I mean.

When you have a coupla orders under your belt, you can go up to your prospects with a smile in your eye and you are libel to make them believe they will be making a serious mistake if they don't buy one of your Half-past Sixes, or what have you. But if you have been laying off and finely have got to have a order, your prospect is libel to have a little of that physiology himself, and he will think, gosh, this guy sure is a pest the way he is begging for a order.

What I mean, if you can make your prospect think everybody is buying this car, so it must be a good one, it is better than making him think the way you are begging him it looks like nobody is buying your car, so why should he.

I been accused, sometimes, of being a bit cocky, but you gotta admit that a cocky rooster is a more impressive sight (Editor: Please spell that one for me—it's a good one), than a whipped dog with maybe a can tied to his tail.

Car Show for Peach Day with Peach Day this year. Peach Day with it.

is an old-established, two-day fruit fes-BRIGHAM CITY, Utah, Sept. 1— tival, and this will be the first time in An automobile and automobile acces- its long history that an automobile sories show will be held in connection exhibit has been held in connection

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# Auburn Stock Cars Set New Marks

Many Speed and Endurance Records Fall in Long Speedway Grind

AUBURN, IND., Aug. 29—A stock car speed and endurance test 30 times the distance of the 500-mile race at Indianapolis has just been completed by the Auburn Automobile Co. at the Atlantic City Speedway. Many old A. A. A. records were broken and a number of new marks were set.

A new mileage record for closed cars was set at 2000 miles when the Auburn made an average of 65.583 m.p.h. as against the former A. A. A record of 62.872. With the 300 in stock car hourly records ranged from one hour at 75.747 against 71.19 the old A. A. record, downward to 64.247 as against 61.30, when 72 hours were reached. New records from the 96 hour to the 240th ranged from 63.043 downward to 61.416 respectively.

Mileage records started with 73.977

Mileage records started with 73.977 as against 68.75 m.p.h. for the 5 miles and ranged downward to 63.695 as against 61.12 for the 5000 miles. New mileage records were 63.004 at 6000 miles and ranged downward to 61.377 for 15,000 miles.

# American Bosch Earns Net Profit of \$80,366

SPRINGFIELD, MASS., Aug. 25—American Bosch Magneto Corp. reports net profit of \$80,366 for the first half of 1927, as compared with \$243,752 in the first half of 1926. Net profit for the June quarter was \$37,684 against \$42,782 in the first quarter and \$104,844 in the June quarter last year. Net sales in the second quarter were \$1,394,704 against \$2,416,089 in the preceding quarter. Net sales for the half were \$2,799,565 against sales of \$6,811,977.

# Insurance Law Successful

BOSTON, Aug. 25-Insurance Commissioner Wesley E. Monk is having compiled some statistics to show just how the compulsory automobile insurance law is working out in Massachusetts. When completed the report will furnish a basis to make any changes necessary in the law next year. There is a feeling that radical changes are due, but according to Commissioner Monk this seems unlikely. He believes that on the whole the present rates are working out fairly well, and that it would be unwise to work out any radical changes, at least until the act has been in operation for a somewhat longer

## Found Trenton Automobile Co.

TRENTON, N. J. Aug. 29—William Metting and John S. Lutz, owners of



Fit for a Prince

Several Marmon Series 75 speedsters were placed at the disposal of the Prince of Wales and his royal party during their visit to Quebec. The picture shows the Prince of Wales on the right side of the rear seat and Prince George on the left side. Premier Baldwin is talking to the occupaants of the front seat

the Free Bridge Motors Co., Morrisville, Pa., and Roy Trudel, of the Harper-Trudel Motor Company, of this city, have incorporated the Trenton Automobile Co., and will sell trucks and automobiles.

# Trainload of Roadstersfor Moon Distributors

ST. LOUIS, Aug. 31—Willard G. Barrows, President of the Barrows Motor Co., Los Angeles, Moon distributor, has ordered a trainload of Moon roadsters. Mr. Barrows recently spent a week at the Moon factory where he made a study of production methods and saw numerous Moon cars in various processes of manufacture.

#### Votes Extra Dividend

DETROIT, Aug. 29—Directors of the Hudson Motor Car Co. have voted to increase the annual dividend on the common stock from \$3.50 to \$5 a share by declaring a quarterly payment of \$1.25, payable Oct. 1 to stock of record Sept. 12. The action was anticipated earlier in the week in local financial circles and is a reflection of the excellent business which Hudson Motor Car Co. has done this year.

### Found Palm Beach Cadillac Co.

WEST PALM BEACH, FLA., Sept. 1—The Cadillac-La Salle Co. of Palm Beach, Inc., has been organized with a capital stock of \$100,000. The board of directors is composed of Edward A. Wadsworth, John S. Acosta, H. C. Le-Master and Joe O'Farrell.

#### Reigelman Reo Dealer

PORLAND, ORE., Aug. 29—Fred L. Reigelman, well known automobile dealer, has been appointed Reo dealer for Clark County, Washington, and will operate under the name of Vancouver Reo Company with headquarters at Vancouver, Wash.

# Olds. July Sales Set Record for Month

LANSING, Sept. 1—July Oldsmobile sales set a new record for that month, the factory states, declaring that retail sales exceeded factory production and with the condition existing this month, predicts that a new August record will be established.

The number of Oldsmobiles in dealers' hands has remained at a low level during the past two months and while production has been increased retail sales have absorbed the supply of cars as rapidly as they have been received by the dealers.

Retail sales for July showed a gain of 16 per cent compared with the same month last year. During August the factory has been working at capacity producing more than 300 cars daily.

#### Portland Dealers to Show

PORTLAND, ORE., Aug. 25—With the completion of Bates Motor Ramp Garage, Portland, automobile dealers decided this week to hold their first summer automobile show Aug. 26 and 27. Eighty thousand square feet is available in the new building.

This show will mark the opening of the new building in which will be housed 120 of the newest machines depicting the year's progress in the industry. Admission will be free, and dealers will vie with one another in attracting the crowds to their particular models.

#### Lynne Chevrolet to Build

FREEPORT, TEX., Aug. 30—The Lynne Chevrolet Co., handling the Chevrolet line in this district, awarded the contracts recently for a new sales and service building that will be one of the most modern plants of its kind in the southwest.

# Replacements Aid Automotive Market

Stutz Vice-President Points
Out Reason for Demand
in Late Season

INDIANAPOLIS, Aug. 30—"July business compared favorably with June, which was one of the best months of the year, and a cross section of business conditions throughout the country leads us to believe they will continue on the whole favorable."

Thus Edgar S. Gorrell, vice-president of the Stutz Motor Car Co. of America, Inc., sums up the automotive outlook in general and Safety Stutz business

in particular.

"Unquestionably the recent reports of the automotive division of the department of commerce clarify the world's automobile consumption and indicate clearly the relationship between new and replacement demand," continues Mr. Gorrell. "With replacement demand as a matter of fact rapidly approaching the level of new demand, business must be fundamentally sound.

"Throughout the country there are spots where business has been sluggish for a variety of fundamental reasons but in other sections general conditions have been better than earlier calculations indicated. As a result there is what amounts to a late demand for automobiles, if we discuss the term in a seasonal sense, but this demand really reflects the proven percentages of replacements which are less susceptible to seasonal new demand."

# 300 N. J. Truck and Bus Men Fail to Pay Tax

TRENTON, N. J., Aug. 29—Operators of more than 300 automobiles engaged in interstate transportation of passengers or property have failed to comply with the law imposing an excise of one and one half cents a mile. Motor Vehicle Commissioner is preparing to carry out the mandatory provisions of the act by suspending the registrations of the delinquents. Taxes amounting to 13,337.12 have been collected.

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## Studebaker School To Open

SOUTH BEND, Sept. 1—The Stude-baker Corp. of America will begin its next Sales Training School at the plant offices Sept. 12. The period of training will last three weeks. Enrollment in this school will be made up of Studebaker distributors, salesmen and sales managers.

#### Hillside Doubles Plant

HARTFORD, CONN., Sept. 1—The Hillside Tire & Battery Station, 52 Hillside Ave., has doubled the size of its plant and is using part of the increased floor space for a battery department.

# Jest—A Bit Cynical

By S. G. SWJFT

BEING somewhat more yellow than sere, if you get what I mean, I have always felt that life in Utah might have its advantages. But I'm not so sure that I want to live there; the state has adopted for its 1928 license tags the picture of a sheep and I'm afraid that I might be out riding some evening, start counting them as they flashed monotonously by and fall asleep.

THE further we get from the Lindbergh flight, the greater it appears by comparison. The pacific flight, counting the preparations for it, has resulted in the death of 11—four of them killed before the race—if we recall the figure correctly, and the foreign fliers who have been hoping to come to America via air, are still waiting. The latest report tells of the delay of the Englishman—caused by a broken shoelace—and we understand that another European entry has had to withdraw because his plane has become so old waiting for fair weather that it is considered unsafe for use. I prefer the automobile. There is always a good chance that it will stop when the power stops; an airplane never does. It just keeps on going—down.

As I was riding along a country highway the other day, my attention was arrested by "a banner with this strange device"—"Used Cars that are Used Cars." Frankness is said to be the basis of good advertising; therefore this used car merchant must be a first class advertising man.

I T isn't as though it made any difference one way or another, but since turning my attention to the profits to be made from washing cars and reporting my findings in the Aug. 18 issue of Motor Age, I have been doing a bit more sleuthing. And I have come to the conclusion that the most money in the service end of the business is made by repairmen who are equipped to specialize in complete engine reconditioning. If a car owner drives in to one of these completely equipped shops for any kind of a motor job they explain to him why it is to his advantage to have the entire engine gone over. They back up their selling argument by showing him the equipment they have for doing good work quickly, explaining the part that each piece plays in doing the job. It is surprising to see the way that car owners respond to this suggestion—when they know that the repairman is equipped to turn out the job quickly and economically.

The profit possibilities of engine reconditioning are all out of proportion to the small investment necessary for you to get the proper tools and equipment to do this work economically. Perhaps this is worth thinking over.

THE farthest south in advertisements, in my opinion, is one that I have just read which states that a certain sport roadster "will be appreciated by the youth of sporting tendencies, because of its quick pick-up." I haven't been that type of youth for years, but when I was I always found that I could pick-up all I wanted with dad's old flivver. And I've even picked up some good ones with Old Prince and the sleigh.

AMAN who contemplates entering the retail end of the accessory business has written to me for my advice as to where he should purchase his stock. I am embarrassed at being so complimented, but that won't stop me from answering his question. The accessory dealer who takes pride in maintaining a high class establishment knows from experience that the surest way to do this is to stock nothing but the most dependable merchandise. The best is none too good for him and he purchases all his wants from dependable sources.

When I speak of dependable sources I refer to jobbers of the better class. These men handle only known brands of quality merchandise. My friend who plans to enter the business will add to his reputation by stocking the goods they sell. From my experience with jobbers I know that he can patronize them with confidence.

A READER writes to ask if we can publish the namer of the officers of the Emerson Motor Car Co. Yes, we probably could, but we won't. If we were to do that it would merely offer encouragement to others who might want to ask foolish questions; we might even have the column turned into a question and answer department with someone asking us to publish the words of the poem beginning, "So I know I oughtn't auto Annie Moore."

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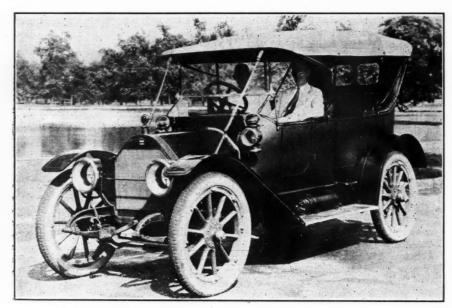
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Fifteen Years Young

This Moon was purchased in June of 1912 by G. A. Hillburg of Bassatt, Neb., from Bennett Auto Sales Co., Sioux City, Iowa, and has been in constant service since that time. Its motor number is 6314

# U.S. Rubber Co. Net

NEW YORK, Aug. 31-For the first quarter of 1927, United States Rubber Co. reports net income, after all charges and interest, of \$3,240,963, equivalent after preferred dividends to 78 cents a share earned on 810,000 shares of common stock outstanding. This compares with \$4,915,668 in the corresponding period last year, or \$2.85 a share on the common. Neither figure includes any income on rubber plantations owned by the company.

Sales for the first six months of the year amounted to \$88,110,626, a decrease of \$12,003,350 compared with the corresponding period of last year. This decrease is ascribed by C. B. Seger, chairman, to lower prices for tires. Tire sales, other than to automobile manufacturers, increased in unit volume but the decrease in selling price was about 25 per cent.

# Whippet-Knight Motors New Willys Distributor

TOLEDO, OHIO, Aug. 29-An important change in the dealer organization of Willys-Overland, Inc., is announced by the factory this week with the appointment of The Whippet-Knight Motors, Inc., Third and Chest-nut Sts., Columbus, Ohio, as distributor for that city and Central Ohio.

The new firm is built up of the principals of the Chas. Zimmerman Sons Company, one of the oldest and most successful automobile merchandising organizations in the Columbus territory.

For more than 20 years the Zim-

merman company was the exclusive Ford dealer in Columbus and the representative of Dodge Brothers in Shows Decrease representative of Bodge Brothers Central Ohio for more than 12 years.

# Stage Novel Exhibit

ALTOONA, PA., Aug. 30-A unique method of showing automobiles will be followed by dealers of this section on Labor day, Monday, Sept. 5, when they will have their latest models in a moving automobile show, which will be staged at the Altoona Speedway, prior to the race program.

## Perkins Takes on Falcon-Knight

BAKER, ORE., Aug. 29—Clyde L. Perkins has become Falcon-Knight dealer for this territory.

# Woodchuck-Poison Food for Airplane

PUTNAM, CONN., Aug. 30 Lieutenant E. B. Mallette in his air trip from Boston to Hartford ran out of fuel over Putnam and was forced to make a landing. Unable to obtain high test fuel nearer than New London, which was many miles away, the flyer was stumped until a farmer insisted that his stock of woodchuck poisoning was just as effective as high test gas. The flyer tried the stuff out and his motor hummed sweetly. He finished his trip to Hartford on the poison and then had the stuff anayzed. It was carbon disulphide.

# Fulton Co. Heads Buy Into Kokomo

Fultons, with Fidler and Worcester, Purchase Controlling Interest

MILWAUKEE, Sept. 1-Controlling interest in the Kokomo Automotive Mfg. Co. of Kokomo, Ind., has been purchased by S. A. Fulton, L. M. Fidler, E. L. Worcester, and F. P. Fulton, all of the Fulton Co., it was announced today.

The Kokomo Automotive Mfg. Co. makes windshield wings, closed car wings, closed car ventilators, mirrors and onyx gearshift balls. A new factory has just been completed. Sales will be handled as in the past by the Fulton Co.

New officers of the Kokomo concern are as follows: S. A. Fulton, president; N. T. Albright, vice-president; L. M. Fidler, treasurer; Don P. Strode, secretary; E. L. Worcester, sales manager; S. A. Fulton, N. T. Albright, L. M. Fidler, Don P. Strode, and E. L. Worcester, directors.

# Industrial Acceptance Corp. Earns \$561,640

NEW YORK, Aug. 30—Industrial Acceptance Corp., which handles times sales for Studebaker dealers exclusively, reports earnings for the first six months of 1927 of \$561,640 against earnings of \$1,004,819 for the full year of 1926. After reserve for taxes and after dividend requirements on the first preferred stock, the balance available for divdends on the common was \$1.35 a share.

### Wins Studebaker Prize

SPOKANE, WASH., Aug. 29-Robert Exley of Colville has won the first prize in the Studebaker competition for the best model of a Studebaker Dictafor sedan in miniature submitted by boys in the 11 western states.

#### Gets Chevrolet Franchise

CLARKSVILLE, TEX., Aug. 27-The Clarksville Motor Co. has taken over the franchise of the Red River Motor Sales Co., Chevrolet dealer in Red River County. J. E. Kuykendall and Paul Ussery are members of the new company.

#### Jim Smith Enters Business

GREENVILLE, S. C., Aug. 29— James R. Smith, formerly connected with the Greenville Cadillac Co., has gone into business for himself under the name of the Rusco Garage, 119 North Brown St.

#### Found Century Tire Service

CHARLOTTE, N. C., Aug. 31-Century Tire Service Co., Inc., has been chartered to deal in tires and other rubber products.

# Turn Sod for New Fisher Co. Building

Prominent Men at Ceremony; Fred J. Fisher Predicts Prosperity

DETROIT, Aug. 29—Continued prosperity for the automotive industry was predicted by Fred J. Fisher, executive vice-president of General Motors Corp., addressing a luncheon in General Motors Bldg. this week, following the ceremony of turning the first sod for the gigantic new Fisher building. A group of representative Michigan citizens including Gov. Fred W. Green and Mayor John Smith, of Detroit, were on hand to join the seven Fisher brothers in the ceremony.

The first unit to be erected will represent about a third of the ultimate structure. It will be the home of Fisher & Co., organized Jan. 1, 1924, for \$25,000,000 and now worth \$100,000,000. This stock is equally divided among the six elder brothers, Fred J., Charles T., Alfred J., Lawrence D., William A., and Edward F. Fisher, and the youngest brother, Howard A., will eventually become an equal partner and officer. The brothers have added Clarence Bitting as a director.

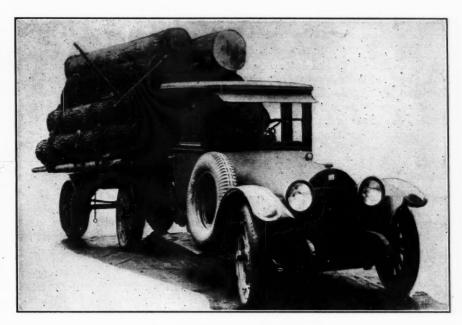
"When Fisher & Co. was first organized some people said it was only a tax dodging and bond buying convenience," said Fred Fisher. "We have disproved this statement by showing a balance sheet today four or five times as large as that of the \$20,000,000 for which the company was organized. Most of this capital is still in the form of General Motors stock and Fisher Body

"There has been no magic growth. It is merely the effect of our faith in the motor industry generally and in the General Motors Corp. in particular. We look for a normal growth in business in the future, and we believe the peaks and valleys in the nation's business are now in the past. For many years I do not believe there will be a boom. I do anticipate a regular growth of 5 per cent or 10 per cent annually."

# Thirtieth Anniversary of Olds Celebrated Aug. 21

LANSING, Aug. 27—August 21 marked the thirtieth anniversary of a meeting of the directors of the Olds Motor Works when orders were issued for the building of the first Oldsmobile car.

In 1898 Oldsmobile built a few more cars but the output could hardly be classified as quantity production. It was the following year that Oldsmobile executives saw the future of the automobile and began to plan for quantity production arranging at that time for the manufacture of parts and final assembly operations. In 1900 Olds entered on this plan and while many man-



Seven Tons Is No Load

Here we have a vehicle made of the front end of a Buick 1920 sedan, lapped to the rear end of a heavy duty truck. It covers 140 miles a day with a load of five to seven tons with never a layoff from work

ufacturers looked with little favor on the idea, Oldsmobile manufactured 1400 cars. Output in 1901 was increased to 2100 and in 1902 to 2500.

# North Carolina Now Has Car for Every 6.6 Person

RALEIGH, N. C., Aug. 30—There is an automobile for every 6.6 persons in North Carolina, according to statistics just made public here, which shows a fair sized gain in car totals since a year ago. There are 441,650 automobiles registered in the state.

#### Kibler Motor Co. Organized

ASHEVILLE, N. C., Aug. 30—Kibler Motor Co. has been incorporated for general automobile business. Authorized capital stock is \$50,000.

# Dealer Assembles Model T's from Parts

SPOKANE, Aug. 29-Day-Majer Co., Ford dealer here, has been assembling Ford trucks from its parts department stocks to meet the demand for Model T trucks from farmers and loggers. Profit on the trucks is not as large as on factory assembled units but is greater than on the parts alone. Bodies used on the trucks are furnished by Martin-Parry Corp. Factoryassembled engines, which are regularly stocked by the firm, are used.

Eight hours is required to assemble one chassis.

# Production Figures Show Falling Off

NEW YORK, Aug. 31—Car and truck production in the United States and Canada in July is estimated at about 280,000 units, of which probably not more than 5000 are accounted for by the Ford Motor Co. This compares with 331,104 in June and 369,602 in July last year. Comparison, however, is very favorable when production of National Automobile Chamber of Commerce members alone is considered.

During June the members turned out 297,384 units, and in July, 1926, 217,263 cars and trucks.

# New Camera an Aid to Car Engine Study

WASHINGTON, Aug. 29—A motion picture camera, known as a "chronoteine," the invention of C. Francis Jenkins, noted radio vision inventor, has been perfected for use in the study of automobile engine operations.

He explains his invention as one which will enable engineers to analyze accurately the action of an automobile engine while at high speed.

Some idea of its speed is got from the fact that during actual tests of an engine it registered 3200 exposures per second, or a length of 200 feet of film per second. The rate of the film is 136 miles an hour. Because of this high speed the most minute action of the motor valves can be recorded.

As the pictures are thrown on the screen, the rate of action is 200 times slower than the original movement. The inventor points out that this is 20 times slower than the so-called slow-motion picture.

# Gas, Oil and Hot Dogs-Drive In

A CCORDING to the letterhead, the cable address of the Packard Electric Co., maker of transformers and a u t o m o t i v e cables, is "Packard." Does anyone know their transformer address?

A new type of glue has been perfected for keeping postage stamps from sticking together in hot weather. Hand-to-mouth buyers accomplish the same result by buying them one at a time.

"This Fearful Four vibrates terribly," announced a maiden lady to the service man, "and I'd like to have you remedy that immediately. Would it help to turn off the ignition?"

"Give Drop Forge Dinner," runs a headline in Automotive Industries. What does a drop forge eat?

"That tire you fixed for me a few minutes ago blew out, and just look at my hands now," complained the fair young thing to the shop foreman. "O, don't apologize for their condition — just see mine."

Fine for Parking—Bureau of Police, said the sign at the curb. "Sure is fine," said the man from where the tall corn grows.

Steps to organize National Automotive Salesmen's Association taken in Washington. The association will probably back the plan to scrap all used cars.

L. W. Essex appointed St. Louis district supervisor of Hudson Motor Car Co. Essex is boss of Hudson, seems as though.

Chevrolet extends junking plan to cover all makes of cars. A junk, no matter what its name, is only junk.

Sales executives of small tool manufacturers are invited to A.E.A. conference. Their attention is called to the series on small tools that began in MOTOR AGE, Aug. 4

Two British automobile makers guarantee prices for 15 months to stabilize sales — arrangements for interment have not yet been announced.

Mechanics division of the National Guard will live in tents for the next two weeks—Chicago Tribune. No doubt the training will be

California distributor orders a carload of Moons, is the way a recent news item received in this office reads. How many moons to a carload? Probably depends on whether they are full or crescent.

A contribution, for "Hot Dog," for this page received from Val Haresnape, secretary of the contest board of the A.A.A., was disqualified because it was too racy and did not pass the stock test for official sanction.

"Stone Willys Branch Heads" says an item on page 9. But it doesn't mean that anybody was rocked to sleep.

# John Cleary Says—

- I Some of us are too prone to demand a pound of credit for every ounce of work we do.
- There is a lesson for all of us in the story Bill Lewis, of Cadillac, tells of Charles L. Lawrence, president of the Wright Aeronautical Corp. and inventor of the Whirlwind motor.
- A friend protested that Lindbergh was getting all the publicity and all the credit, scarcely any mention being made of the motor and its designer, who made the trip possible.
- I "Well," was Mr. Lawrence's comment, "I have never met anybody who knew the name of Paul Revere's horse."

# The Month of SEPTEMBER in Motor Age





from these banes. The business with which he is connected suffers directly from the ill effects on his efficiency. It also suffers, indirectly, because these diseases are highly contagious.

They are ailments that ought to be caught in their incipient stages, before they can do any great amount of harm. The first step in the eradication of any disease is a knowledge of its existence in the patient. Let's each of us look over our own business.

Take this matter of precedent.

"We've always done it that way" is an especially prickly thorn in the side of the business man who insists that every job of work around his place shall be done with efficiency. We don't mean the man whose conception of efficiency, or scientific management, as he sometimes prefers to call it, is faithfully illustrated by the story of the newfangled office system whose fascinating operation engaged all the time of all the employes of the concern, to the utter neglect of the presumably necessary functions of making and selling goods and collecting bills.

simism

We refer to that wiser man whose definition of effi-

# Picayunishness—Pessimism

By John Cleary

of ours.

It is time for udaily lives, seem taims.

We all know suin the "here and

ciency is simply
"Doing the
thing you have
in hand just as it ought

Nothing has riled such a man to just anger like the wearisome repetition of the excuse that a certain thing was done because "we have always done it that way."

The expression and the mental attitude behind it compose the prize monwrench in the machinery of business.

to be done."

key wrench in the machinery of business progress.

Happily, the war that dispelled many of our illusions, forced us to do many of our business tasks the obiviously right way, instead of the way that had been hallowed by mossbound precedent.

It is a godsend that many of us have banished forever from business all those hoary old "we-beg-to-acknowledge-receipt-of-your-favor" practices that had no excuse for their existence beyond the questionable virtue that they represented Grandpop's way of doing business.

But many more of us still adhere religiously to the old precedents. And those of us who have cast aside some of the old practices still have some favorites that we cannot abandon. We still do some things in a certain way because we have always done them that way.

How much more sensible and modern and really efficient it is to say, "Hell! We don't do it that way any more. That's the way we used to do it before the war—or before the flat rate era—or when Ford was still making his Model T."

"We've Always Done
It That Way"—"I
Gotta Get My Sandwich, Milk and Pie at
Noon Sharp"—"Business is Rotten"—
These Are Three
States of Mind Creating a Diseased Condition Which Should be
Eradicated from the
Automotive Business

Unnecessary fussiness, or picayunishness, is another attribute that does not belong in this highly modern business

It is time for us—in these days of admittedly keen daily lives, seem totally bereft of lofty ideals and high aims.

We all know such men. They are absorbed wholly in the "here and now." They never look far ahead. They are so thoroughly immersed in their daily plans and schemes and duties that they have lost their sense of proportion.

For them the most important incidents of the day are the items of their routine and they get all stewed up when any of these little things go wrong—a mixup in telephone numbers, a delay in the arrival of the morning mail, the arrival of a visitor who keeps them from getting to lunch on the dot, something turning up near closing time that prevents them from catching the 5.15.

These men are essentially small men. They are small chiefly because they are self-centered. What they need is a course of treatment that will take them out of themselves and give them a glimpse of something greater and higher to fight for and aim at.

They ought to go out and look at the stars sometimes. And now comes the pessimist.

There are many definitions of the pessimist. There is the one that says the optimist sees the doughnut and the pessimist sees the hole. Then there is the other one describing a pessimist as a man who wears suspenders and a belt at the same time.

The one we like best—because it refers to our own business—is, "A pessimist is a fellow who puts on his emergency brake before he starts a stiff climb, for fear he might slip back."

Obviously, you would hardly expect to find pessimists among the salesmen in this quick-moving automotive business. In fact, it is doubtful if a pessimist can sell anything, although he may take an occasional order from someone who already is sold.

Pessimists do slip back—because they expect to do just that. And they not only fail to get business, but they actually kill it.

Gest and Wetzel are both on the payroll as salesmen. Gest says business is rotten and that is what he tells everybody he meets. Being reminded of it, of course they don't buy.

(Turn to page 40, please)

The automobile hotel

idea infers

something different and should create

new interest



# AUTOMOBILE HOTEL

And Why Not Conduct
It Along the Same
Lines of Service as
Furnished by the
Modern Hostelries?

By Monte W. Sohn

OME of these mornings a smart garage man is going to start something by calling his place a "Hotel for Automobiles." He is going to make this a first step in the direction of doing things differently—the beginning of a number of new ideas in garage management.

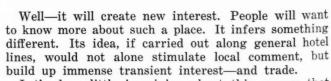
Why shouldn't it be an Automobile Hotel? And what else is it?

A car spends its sleeping hours there—has its laundering done—gets its food, barbering, bathing there—and when it is sick, the "house physician" attends to its ailment and restores its health.

Given just these hunches to play with, we can have a good deal of satisfaction—get our "hotel" talked about—visited by more "guests" and made more profitable.

No garageman to my knowledge has ever done the "hotel" idea. Yet I'm sure it is as workable a proposition as any management plan I've ever seen. And the beautiful part of it is that it doesn't take a lot of money to put into practice.

What good will it do? What difference will it make in dollars and cents?



Let's do a little imagining about this garage that we're making into a hotel.

We turn the office into a hotel office. The room is split down the middle by a glass display counter, at one end of which is a cashier's cage. The open section of the counter (which contains various accessories) bears a "register" and a neat sign, labelled "Room Clerk." In back of the counter is the proprietor's desk, telephone, safe and files. The office door also might

IN this article an advertising man, who for more than a dozen years has merchandised and sold automotive service and accessories, jots down some interesting ideas on how a modern garage might be conducted.

ROOM CLERK

hotel. Let's see how we may carry out this hotel for more than a dozen years has merchandised and sold automotive service and accessories, jots down some interesting ideas on how a modern garage might be conducted.

The various departments of the modern hotel are copied in the automobile hotel. There are the Hotel Clerk, House Physician and Beauty Shop, appropriate labels for the front office, the repair shop and the wash rack

be lettered "Room Clerk."

The repair shop door might carry the term "House Physician—Office Hours 8 A. M. to 11 P. M." The Wash Rack would become a Beauty Shop bearing a sign that said so, and a list of beautifying jobs with their prices large enough to be instantly readable. On one wall, also easily legible, would be a large "Menu," with a list with prices for semi-mechanical services, covering everything from tire vulcanizing to battery charging. On another wall there might be another sign saying something of this sort:—

"To Our Guests-

In welcoming you to the (Ogden) Automobile Hotel we wish to say that the main idea of this establishment goes much farther than just classifying it as a hostelry. We have thought that a garage must be more than just a motor car lodging house. And we hope you will agree that we are succeeding in a finer type of service—with a deeper appreciation of the fact that you are leaving in our care not just an automobile—but a guest worth several thousand dollars. Thank you.

John Smith, Manager."

We now have the scenery—the stage setting for our

hotel. Let's see how we may carry out this hotel idea, creating new standards of service.

Tags. Take a look at the suggested transient tag illustrated herewith. Note that on the one side there are duplicate numbers and space for two signatures. When a man leaves his car he signs the upper section. The bottom, detachable section becomes a check which he takes away with him. He does not sign this check until he calls for his car. Comparison of the signature, as well as comparison of numbers proves it is his car.

It may seem to you unnecessary trouble to do this. But it won't have that effect on the motorist. To him it means a "Hotel For Automobiles" where the service is unusual—where the management takes no chances. He appreciates it—and talks about it.

Now examine the obverse side of the tag. The back of the check carries our creed—the paragraph "To Our Guests"—which appears on the wall sign. Above it—on the main section of the tag we tell him a few things he ought to know about his car and our service, several of which will agreeably please him.

The newspaper you have put on his front seat if you have a 200-car garage, means a daily outlay of only \$2, because buying them in such quantity the publishers will gladly let you have them at wholesale—a cent a copy—and deliver them to you. All patrons may not read your newspaper, but they'll take it along, and tell others. It's unique, different—and unexpected courtesy

As to the free brush-up service for the car—its cost is negligible, and examination of gas and oil supply makes many sales of these motoring essentials to motorists who hadn't intended to fill up. Strangely enough,

# WHY NOT THE AUTOMOBILE HOTEL?

car owners also appreciate when it comes in writing this reminder — especially when it comes in writing and not by the spoken word.

After a motorist has "signed" for his car, your day man detaches the tag from the steering wheel, compares numbers and signatures and then hands back the upper section of the tag to the car owner. This is for two purposes. So he may read the "Good-Morning" paragraph and also that he may take the tag along for a souvenir.

The space "Extra Service Ordered" is for notation

by the night man of any special work done—such as vulcanizing, battery charging, washing, and so on. And the day man sees at a glance if there are extras to be paid for.

All of this may seem like a great amount of service to be given away. Actually it is the highest type of business development work. And actually also, you aren't giving it away, because it permits you to get more for your garaging—monthly and daily.

You might say, "I can't get \$1.50 for overnight storage and twenty-five to thirty-five a month." Perhaps not. Yours may be a run-down little parking place—dirty, uninviting and indifferently managed. But if it is fairly modern, scrupulously clean, and with plenty of soap, brooms, air and ventilation around, perhaps yes!

It is one thing for a man to get stuck at a cheap cabaret, with sick music, terrible grub and rotten amusement. But at a good restaurant he'll pay the same amount of money for fine food with excellent service, and never miss the jazz. He may say "their prices are high"—yet he'll always add "But—the grub

is certainly great."

The first 25-cent movie was given six months to live. People, they said, wouldn't pay over a dime. But they did—and do. Why? They're getting

more for their money.
So much for your transients.

The same courtesies go for your regular boarders—newspaper, brush - up and checking of gas and oil. In their case, however, you would merely have small square cards printed giving fuel and oil check-up—leaving this card with the newspaper on the front seat.

Suggested tag for Automobile Hotel



In reality the "Beauty Shop" is a very appropriate name for the washing department

There are other services you can render to steady customers—most of them profit creators. A onceweekly test of batteries permits you to tie a battery inspection tag on the steering wheel. It might say, "We tested your battery last night. The reading was ——specific gravity, which means it is—charged." In the last blank space you would insert "fully." "three-quarters"

space you would insert "fully," "three-quarters," "half" or "Dis—." Below you might call attention to your excellent recharging service department, making mention of its inexpensiveness.

Tire examination might be set for another night—and a similar tag provided, referring to the condition of each of the tires and the spare. Severe bruises or cuts would be pointed out. Your vulcanizing service and new tires you handle would be referred to. Under "Remarks" you could make special comment on a particular tire which perhaps was too far gone for repairing.

These are just a few examples of how a little enterprise can lift a garage to new heights—new standards and a larger bank account. Again and again it is demonstrated that doing things differently, rising out of the rut, is a sure trail to bigger business rewards.

And the owner of a garage who decides to put storage and repair service on a better, pleasanter basis for his patrons will get a lot more fun out of his job. And a darned sight more money out of his customers.

The hotel idea isn't necessarily the answer to the maiden's prayer. It isn't a fail-proof solution to the garageman's problem. But it is a group of ideas which at least constitute a constructive effort to raise the level of garage service, requiring little in added over-

head, and worth trying.

Which recalls the little girl's comment on her latest baby brother.

"Well," she said, "he's all right—but isn't he just a little too new?"

Perhaps the hotel plan suffers from the baby brother's shortcomings. But when new ideas arrive with a certificate of proved perfection pasted on them, little brothers will come into the world wearing long pants, and business will be a slot machine into which you stick your capital and draw out the profits every Saturday night forever.









# Used Car Remedies

A Host of Plans

Have Been Advanced—Some Are Being Applied With Success, While Others Got the Crepe

By John C. Gourlie

A GROUP of automobile dealers recently were engaged in a discussion of used cars. One of them remarked: "So-and-so" — naming a prominent automobile man — "has solved the used-car problem. He says, 'Buy them right.'"

Appreciative laughter rewarded this sally, and it was some time before

the meeting again took a serious turn. It is funny, when you consider that everyone in the trade is trying to do just that thing, and finding it the hardest job in the world. Not what to do, but how to do it, is the big question.

To aid the dealer in buying them right has been the fundamental object of every used-car plan actually put into operation. A host of these schemes have been proposed in the last few years, and some of them have been tried. The latest to gain wide notice is the Windsor plan and the interest shown in it prompts a brief description of the more important of the other plans. In the light of the older devices, the essential points of the newer are placed in bold relief.

These plans were launched hopefully upon the troubled sea of the automobile trade. Some of them foundered abruptly and some have continued to navigate the ways, if not smoothly at least with some satisfaction to the pilots. No cure for the used-car evil has yet been found,

HERE are a dozen of the used-car plans that have been advanced to help the dealer conquer his worst foe.

- 1. Baltimore Plan
- 2. Windsor Plan
- 3. Jacksonville Plan
- 4. Cleveland Plan
- 5. Saginaw Plan
- 6. Boston Plan
- 7. Cincinnati Plan
- 8. Appleby Plan
- 9. New London Plan
- 10. New Hampshire Plan
- 11. NADA Green Seal Plan
- 12. Scranton Plan

but there are ways of helping.

#### BALTIMORE PLAN

Newest of the schemes, it deserves first mention for this if for no other reason. It was presented in detail in MOTOR AGE of June 16, and further description would be superfluous. It will be interesting to note, however, its

resemblance to some of the other plans. Despite this superficial likeness, it has points all its own as well as a definitely binding machinery of operation.

# THE WINDSOR PLAN

Most popular of all the schemes, this provides for cooperative advertising by dealers of actual

used-car values, with the object of educating the public to true market values and thus discouraging demands for excessive allowances. Its success is apparently unquestioned in Canada, where it originated, and high hopes are held out for it in the United States. Cautious observers are waiting for a longer period of trial before giving it unqualified approval.

In Canada, starting in Windsor, the plan has spread to Montreal, Toronto, Ottawa, Vancouver, Winnipeg, Edmunton, Lethbridge, St. John, Brantford, Hamilton, London, Sherbrook, Chatham, Saskatoon, Victoria and Regina. At this writing the following American cities have the plan in operation: Milwaukee, Indianapolis, Akron, Toledo, Louisville, Chattanooga, Des Moines and Ottumwa; Fargo, Bismarck and Grand Forks, N. D.; Little Rock, Ark.; Rochester and Elmira, N. Y.; and

Minneapolis, St. Paul, Du-

luth, Rochester, Winona,

Mankato and Montevideo,

To aid the dealer in buying them right has been the fundamental object of every used-car plan actually put into operation. Many plans were launched hopefully upon the troubled sea of the automobile trade. Some foundered abruptly and others have continued to navigate the waves, if not smoothly, at least with some satisfaction to the pilots. No cure for the used-car evil has yet been found, but there are ways of helping.

the first year it is 40 per cent; the second year 20 per cent of the balance; third year 25 per cent; fourth year 20 per cent, and fifth year 20 per cent.

BOSTON
PLAN
dealers for three years cooperated in maintaining a used-car statistical bureau. Each week dealers

reau. Each week dealers reported their used-car sales, showing allowances,

cost of repairs, selling price and whether a straight sale or trade. A synopsis of these reports was mailed to all dealers cooperating. The bureau issued a loose leaf book of prices on virtually all makes and models of cars handled in the territory. The plan was supposed to eliminate guesswork on trade-ins and dealers were supposed not to allow more than the report showed could be done profitably.

#### JACKSONVILLE PLAN

Minnesota.

plan actually bears on the problem as it presents a means of removing permanently from service the cars that are actually unmerchantable but which are nevertheless brought in to dealers for trade-in purposes. It calls for the organization of a cooperative corporation to take in cars from dealers, members of the organization, for actual scrapping, with or without the salvaging of parts and not for further trading or sale. With minor modifications this plan has been taken up in Omaha, Kansas City and Milwaukee, with St. Louis, Cincinnati and Louisville getting under way. A feature of the plan is that it can be operated in connection with the Windsor or other plans which are directly concerned with used-car prices.

CINCINNATI PLAN

APPLEBY

This plan aimed to set up maximum allowances based on the progressive depreciation of used

This plan took its name from the

cars and not only were the cooperating dealers supposed to keep below the maximum but having made an appraisal they were expected to telephone it to a central office, where it was recorded on an index card and open to every cooperating dealer although the name of the dealer who made the appraisal was held confidential.

CLEVELAND PLAN Members of the Cleveland Automobile Manufacturers and Dealers Association have established a coop-

Although not directly con-

cerned with used-car prices, this

erative central inspection station for used cars. Dealers send the better class of their used cars, after reconditioning, to the inspection station where they are examined by a chief inspector and two assistants. If the car passes inspection a green tag certifying to this is placed upon the car. When a car is brought to the station it is accompanied by a statement on the part of the dealer as to its condition and as to the intended selling price. The inspectors will not pass the car if it is not as represented.

Cars which are tested and approved are sometimes listed in cooperative advertising of the bureau but most of this advertising is of a general nature, dealing with the bureau's "Tested and Approved" seal, and is used by dealers to tie up with their own merchandising.

The inspection station is financed by a charge on the cooperating dealers based on numbers of new cars delivered. The campaign has given the approved cars a standing all their own in the Cleveland district and has accelerated the disposal of used car stocks by the members. It has reduced the dealers' used-car advertising costs and has had the effect of standardizing indirectly both allowance and sales prices of used cars.

NOYES-NEW LONDON PLAN

This plan was tried in New London, New Haven, Worcester,

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Waterbury, Bridgeport and a number of other New England towns. Under it the dealers formed a corporation taking stock in proportion to the previous year's new cars sales. A central market was maintained and to it all used cars taken in by members were sent and appraised, and if the valuation was satisfactory a certificate was issued to the customer which he could apply the same as cash on the payment for a new car.

Used cars were sent to the dealer handling that line for reconditioning and then returned to the central market to be sold. Ten per cent was charged for han-

(Turn to page 36, please)

PLAN

Probably the oldest of all used-car plans, this device of the Saginaw Automobile Dealers Association has been in operation for 10 years. It seeks to establish a maximum allowance. The dealer for each make fixes valuations on all his models for five years back and each member has these figures on file. They advertise to the public the truth about depreciation, saying that for

PLAN originator, James E. Appleby, a motor car dealer of Orange County, Cal., and some variations have appeared under other names. Under it the dealer was divorced from direct operations in used cars. Those participating in the plan established a used-car market and when a prospect offered a used-car in trade he was brought by the dealer to the market where the car was appraised, and a selling price established. Here the owner got a warehouse

a used-car market and when a prospect offered a used-car in trade he was brought by the dealer to the market where the car was appraised, and a selling price established. Here the owner got a warehouse receipt which might be held until the car was sold or which he might turn over to the dealer, who could make an allowance on a new car immediately, holding the customer by a note to any difference between the proposed selling price and that actually realized.

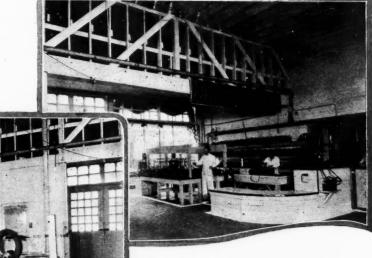
This plan was afterward promoted by the Percy Chamberlin Associates of Detroit.

# Capitol 24 Is Capital

All Around

New Home is Built Along Modern
Lines to Furnish Maximum of
Service While Achieving
Efficiency and Economy
of Operation

By W. F. Dagon



The car washing department of the Capitol 24 Tire Co., illustrated at top, is given a full measure of attention and is a lucrative profit-getter. The neat battery department is shown below

The tire vulcanizing section of the shop

THE Capitol 24 Tire Co., of Springfield, Ill., has just opened its new Firestone Master Service Station, said to be the largest and finest in Illinois. Starting a few years ago with a small store, this company has grown into a large establishment, giving 24-hour service to car owners on tires, batteries, car washing and lubrication.

G. W. Benedict, laboratory engineer for the Weaver Mfg. Co. of Springfield, designed the new station. It embodies the best ideas of Mr. Benedict in his long and successful career as an automotive engineer. It contains all of the latest equipment for the servicing of a car, much of the machinery coming from the Weaver factory, and is the last word in efficiency and in service to the customer.

The Capitol 24 Tire Co. occupies a building that has frontage on two of the principal streets—Sixth and Jefferson. There are three entrances and exits, making

it very easy for motorists to come in and have work performed and to drive out without trouble or any inconvenience. Mr. Benedict has arranged the tire changing departments so that this work is being performed with great speed and without confusion or loss of time.

The tire repair and vulcanizing departments are located in another part of the building, and the customer need not come in contact with this end of the business unless he wishes. New tires are put on and old ones sent to the repair shop or "junked" and the customer is serviced with a neatness and dispatch that has created no end of favorable comment.

One of the principal things that Mr. Benedict insists on in a service station is absolute cleanliness. Floors in the Capitol 24 Tire Co. workrooms are kept spotless. A white border about a foot high is painted all around

(Turn to page 42, please)

# Put Yourself

And You'll Find That Good Ap

Car. Beautify Them and

By William

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pla

new cars all come spick and span anyway.

It is all a matter of physchology and here is how the thought has worked with the L & H Motor Co., state distributor of the Hupmobile with headquarters at Hartford, Conn.

C. E. Emery, general manager of the company, was musing. He was concerned with the sale of used cars just as much as he was with new cars, more so, in fact, for the new Hupmobiles were to a large extent taking

care of themselves. The general manager is one of those fortunate executives who can put himself in the other fellow's place and analyze any situation from the opposite viewpoint.

The matter of moving used cars was given much thought by the general manager. He reviewed the situation from every angle and finally looked at it from the prospect's side of the fence. If the general manager were the prospect, just what would make the best impression on him? What would he expect? What would be his gen-

HUPTOBILE TO THE LA

Sales building of the L & H Motor Co., Hupmobile agency

eral attitude and to what would he most readily respond? Emery gazed at the beautiful rug on the salestroom floor. And this is what he visualized, a used car so nicely reconditioned that it compared most favorably with a new car when placed beside it, a used car that he would not be ashamed to acknowledge. And now,

HAT was considered good enough in used cars yesterday will not pass muster today. This does not imply that the cars of yesterday did not offer as much value for the money as the cars of today. They did. The fact of the matter is that people have changed. They are more fastidious about their raiment, they insist on

C. E. Emery, general manager of L & H Motor Co., Hartford,

better clothes.

Better appearance is demanded and this applies to motor cars. The man who allowed his car to go filthy yesterday will not do so today. He wants a clean automobile, just as he wants clean linen. And the effect of this change in temperament of car buyers is reflected in the used car market, to a greater degree than in the new car market, for the very simple reason that

### in the Prospect's Place

pearance is Demanded of a Used Watch Them Lure Buyers

J. Johnson

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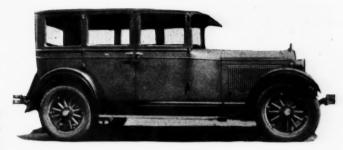
Hupmobile brougham before treatment. The rear fenders were damaged in an accident and the body dented

then, why did he feel that way about it when he put himself in the customer's place? Simply because he felt that way himself. He was just like the customer; he demanded appearance himself.



And this is how General Manager Emery registered his thought. He selected a used Hupmobile, one of the best in stock and set the service crew to work to thoroughly recondition it. The chassis was painted. The body was rubbed up until it glistened like new. The motor was cleaned from end to end. Every part got its share of attention. When the car was ready, it was placed on that beautiful rug in the salesroom, right up

WHEN it comes to used cars, it's beauty that brings home the flitch. C. E. Emery, general manager of the L & H Motor Co., Hartford, Conn., projected himself into the role of prospect and concluded that if he were to buy a reconditioned automobile he would demand one of whose appearance he would not be ashamed. He experimented and proved to his own satisfaction that the better they look the faster they sell. Here's how!



The same brougham after receiving the beauty treatment. When put on sale it sold faster than the prosaic hot cakes

in front of the large plate glass window and here, thought Emery, was something that would instill the desire of possession or he was no judge of human nature.

As a matter of comparison, the used car was placed beside a new car. The reaction of prospective buyers vindicated the general manager's theories on the susceptibility of the average prospect to an attractive motor vehicle. Many looked at that car with more than ordinary interest and for some of them the price was out of their reach, but, the company had other cars priced low, so the idea registered just the same. But one buyer did come along. He stood outside the salesroom window looking in, and he saw a neatly lettered placard on the running board which read as follows:

One Year Old Sept. 20. Original Duco. Mechanically Perfect. The Hupmobile You Buy Will Be The Same A Year From Now. "They Grow Old Slowly." This Car For Sale.

Thirty-six hours after that car adorned the salesroom rug it was driven away by the man who had looked through the show window and read the placard.

Here is the interesting phase of the situation. In the "as is" condition, that is to say before the car was touched up, any one could have possessed it for \$1,650 cash. It occurred to Emery that by making the car look as good as new an extra \$200 could be realized. He was right. The buyer readily parted with \$1,850 for that used car and was cocksure that he had made a good deal. He had, as a matter of fact. And he did

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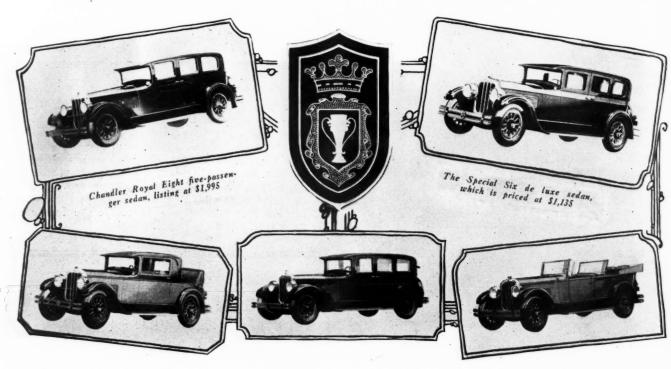
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### A Few of the Latest Chandler Inspirations



This Chandler Special Six coupe with rumble seat lists at \$1,135

Above is the Royal Six fivepassenger sedan at \$1,795

The Chandler Special Six sportster is priced at \$1135

### USED CAR REMEDIES

(Continued from page 32)

dling. In general outline it was similar to the Appleby plan, but there were numerous departures in detail.

### NEW HAMPSHIRE PLAN

This distantly resembles the Windsor plan. The Automobile Dealers Association

of New Hampshire by cooperative advertising acquainted the public with the value of used cars, according to their rating. Forty per cent was the depreciation of a car one year old; 52 per cent two years old; 64 per cent three years old; 69 per cent four years old, and 80 per cent five years old.

### NADA GREEN SEAL PLAN

Under this plan, offered and copyrighted by the National Automobile Dealers

Association, used cars reconditioned by dealers were turned into a central bureau for inspection, the scheme to this extent resembling the Cleveland plan. Cars passing inspection had attached a green seal listing the condition of the car, and were returned to the dealer if not passed. Sales were reported to a used-car bureau which made a weekly report of the prices for a local used-car market report.

### SCRANTON PLAN

This plan, one of a general group of which the latest exemplification is the Baltimore plan, was tried about

two years ago and later abandoned. Focusing in a sales board, it called for a personal estimate quarterly from each dealer of the proper selling price for each of his last five years' models in good condition. This

was sent to all member dealers as basis for trades after deducting the reconditioning cost of 15 per cent handling charge. Penalties were imposed for violations of the board's rulings. Each dealer reported weekly his used-car sales and inventory, affording a barometer for allowance prices.

And so they run. Despite the divergence of means and methods, a notable singleness of purpose is revealed—to enable the dealer to take in cars at the right price. Furthermore, except where an effort is made to divorce the used-car business from new car dealers, in most instances exchange of information as to prices and values is an essential feature. The need for reliable information has certainly been widely felt, and it was natural that in the latest plans—those bearing the names of Windsor and Baltimore—a way of making that information effective was sought.

'Frisco Doubles Equipment Show Space

Nearly double the space ever before devoted to equipment at a Pacific Coast automobile show will be given over to this department at the annual show in San Francisco next winter, according to George Wahlgreen, general manager of the Motor Car Dealers Association of San Francisco. Cooperative exhibits of equipment, accessories and service machinery and equipment will be made by virtually all of the jobbers of San Francisco, and automobile dealers, garage and repairmen, and service-station operators will be given an opportunity to participate in this, the first exhibit of its kind to be held here. Hitherto, the equipment men have been limited to comparatively small space.

## Why Customers Leave Home

Buffalo Packard Dealer Learned It Was to Purchase Accessories Whose Promotion

He Had Neglected

*By* Lloyd S. Graham

ANY automobile dealers complain that they simply can't do much in selling accessories with new cars; that there isn't any money in it. But here is a dealer whose accessory sales mean thousands of dollars profit to him annually, besides creating more satisfied customers. This dealer is Ralph E. Brown, head of the Packard Motor Car Co., Buffalo, N. Y.

Mr. Brown got the idea that there was something wrong with his accessory sales about two years ago when he was in New York. While he was in a store that specializes in high-grade motoring and outdoor

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merchandise accessories, he was a silent witness as a Buffalo woman, who had purchased cars from him, bought two fine automobile robes at the retail price of \$100 each.

Why, Mr. Brown asked himself, should his customers find it necessary to travel 300 miles to New York to purchase motoring accessories? Clearly there was something wrong with the service he was giving his customers. Clearly he was overlooking a profit-making opportunity. Evidently motorists did need and actually did buy all sorts of motoring accessories from time to time. Who had a better right to sell to Packard customers in Buffalo than he, provided he displayed the merchandise in an attractive, easily-get-at-able way?

Following that line of thought, Mr. Brown built an accessory room adjoining his car display floor purposely for accessories. He came to the conclusion that the public will buy accessories of the automobile dealer but that in order to show them properly, everything in this nature should be displayed in a separate room. This room is not large, about 15 by 15 feet in size. It is tastefully furnished and decorated, the atmosphere corresponding to that in the showroom where the Packard cars are on display.

In this room are fine automobile robes, samples of robe fabrics, radiator ornaments, samples of special

Ralph E. Brown, head of the Packard Motor Car Co., Buffalo, N. Y., dealer



A corner of Mr. Brown's accessory room where most car sales are now closed and additional profit is accumulated

upholstery, panels showing hundreds of special paint jobs in colors and a wide variety of other items. Not the least of all that is on display is a cabinet of about a dozen drawers in which there are photographs of special bodies done for Mr. Brown's customers on the Packard chassis.

It is a curious fact that, although each of the salesmen have desks near this room, most of the deals for cars are not closed at the desks but in this accessory display room. Salesmen are now educated up to the point where they realize fully that when they have sold a car their job is only partly done.

Often for the purpose of showing a special color combination for the newly-purchased car, the customer is taken to this room and while there, it is rare that some accessory is not ordered or some extra work contracted for which means extra profit in the pocket of the dealer. Thus it is not unusual for \$3,000 purchase to become a \$4,500 one by the time a selection of extras has been made.

In this room also it is easier to sell special body jobs. In the body photograph cabinet, each drawer is marked for the body maker whose work is shown in the photographs resting in that drawer, such as "Brunn", "Fleetwood", and so on.

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## Sometimes It's Courtesy and Sometimes a

A Motor Row Wanderer Takes a Stroll and Finds a Shop, Typical of Its Kind, Where a Vulgar Display of Familiarity is on Tap and Misguidedly Dispensed as the Acme of Courtesy

Just Listen to Papa I've just been having more fun than I could get by watching a hare-lipped man with St. Vitus

dance eat corn on the cob. Being spectator and audience at that pastime carries considerable of a kick, but so does observing the peculiar maneuvers and gyrations of an automobile agency service department that thinks it is dealing out courtesy with its service, when it is a stranger to the meaning of the word, courtesy, or the spirit of its practice. If one hasn't a pervading sense of humor at such a time, pathos, or even indignation might claim the floor; but after all there's something inexpressibly ludicrous about a chimpanzee in a dinner coat, teetering around in the spotlight, trying to remember the tea-room manners

lately hammered into it. The effect on the casual observer is much the same when a bunch of service station soreheads, ready to strangle their boss and filled with a baleful desire to pound the customer over the head with a wrench, reluctantly go through the motions of what they perhaps deem is "company manners" to the car owner who is present.

Now I don't mean to go on record as saying there are a slew of these fret-shops, but I do boldly assert there are a blamed sight too many of them for the good of the business. And if the front room salesmen are combinations of Lord Chesterfield, Beau Brummell and the latest favorite silver screen sheik, while the denizens of the service and repair department are glowering mergers of Caliban, Black

Bart and Lon Chaney in his hardest-boiled role, the contrast to the humble and tremulous customer must be something appalling. Sometimes the reverse is true and the front room men are the grouches, while the chaps who do the hard work are surprisingly civil and well-trained, but that's another narrative. I'm telling you about the birds who have had "Courtesy" stitched on the back of their overalls, and that's actually symbolical—they just can't see it.

Do You Smell Gas?

Before we tack down the carpet, let's get things straight. There is something worse in service station manners than out-and-out grouchiness. There's something honest and straightforward about that attitude, even if it does rub us the wrong way. It isn't supposed to bring custom, but nothing on earth, to my mind,

will drive patronage away more permanently than the mishandling and manhandling of courtesy by a bird who wouldn't be able to recognize the real thing if it came down the pike labeled all over and if he wore magnifying goggles.

Oh, well! Let me tell you a few things I observed in one service station. Got a match? Thanks. Now I can shoot. When I eased into the-let's call it the Firegilt Motors, Inc., because that isn't its title and will do as well as any other, I ambled up to a post opposite the entrance of the service superintendent's private office, or what he chooses to kid himself is his sanctum. I leaned back, tried to look as innocent, unobserving and vacuous as possible-I can do the last-mentioned to perfection-and fell into a receptive

EVERYBODY who has the usual modicum of sanity and can eat without sticking his fork into his ear or his neighbor's, will stoutly maintain that the motorist comes to the service station to get efficient, prompt and respectful service; just that. Anything else handed to him, or hung on him is entirely gratuitous. The customer doesn't show up at the shop for social intercourse, for bon mots, repartee, merry quips, advice to the lovelorn, or to learn grace and charm from the ding men and grease-hounds. He wants the job done the best way the hands know how in the shortest reasonable time and he can forgive them for almost anything but poor and slow work and disrespect. And yet, apparently, the idea of courtesy in the minds of some service station employees is --- Make yourself comfortable and read the story.

mood. The service superintendent's door gives on the drive - in

the drive - in and just beyond is the "short - job" service department, with the repair shop adjoining, so I had a good view of all that went on. Pretty soon in glided a handsom e Whazzis Six, with a portly citizen of middle age at the wheel. He was extremely dignified in deportment and I sized him up as a banker, fond of golf, the decanter and other amenities of life and practiced in the art of having his own way in all things.

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His car was an expensive one and of the make Firegilt Motors, Inc., deals in. Evidently he had purchased it here not so

very long ago and he looked capable of writing his check for several repeat orders without having to worry about any consequent pinch of poverty. Added to that, he was an admirable type of man, thoroughly urbane and sure of himself without undue conceit. He had one quality highly developed that I had no way of knowing then—forbearance.

Now, on the level, I ask you—wouldn't you think that sort of good customer would be approached in the right sort of spirit by anyone, seeking his continued

"How's-a-Kid?" asked the salesmanand this Monday morning prospect told him

patronage, who had for a head anything better than a sickly, fly-specked jelly bean? Chorus, we'll broadcast it! But what happened? Out of his coop lounges this superintendent, when he gets good and ready, meeting

### SOMETIMES IT'S COURTESY AND SOMETIMES A SHAME

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the customer considerably less than half-way. As this concern doesn't have service salesmen, the superintendent is supposed to act as official "greeter" and that's one reason why his cubicle is on the drive-in. His first words to the customer were civil enough, but he rested one hand on the banker's shoulder as he inquired about the car. Now I knew from the way in which each greeted the other, that they weren't old friends and cronies and that the banker's acquaintance with the superintendent was entirely a business one. Probably he never had seen him until he bought his car and from the appearance of the vehicle, I should say there had been no occasion for them to meet more than three or four times at the utmost. And yet here was this superintendent starting right in with a necking party. Maybe the front office had imbued that superintendent with the idea of being "friendly" to customers, but if this was his interpretation of it, all I can say is he needs the good offices of Beatrice Fairfax and other etiquette columnists. I could see with half an eye that this "my-good-man," back-patting was extremely offensive to the customer, but the message of the cool stare didn't seem to get across to the superintendent. Before the end of the confab I noted that "Forbearance" was written seven columns wide across the banker's countenance.

Try This
Cotter Pin
need of all the forbearance he could summon up for the emergency. Somehow, the shop order was written up without any more back-slapping, or any chin-chucking, which I had confidently expected would come next. But the worst was not far off.

Firegilt Motors, Inc., I am given to understand, in addition to priding itself upon the courtesy of its employees—which was my reason for being present as an observer—is somewhat elated over its "friendly" policy of inviting customers into the shop to discuss the work to be done and, if desired, watch the processes. As the service superintendent asked the banker into the shop, I leisurely followed and continued the business of observing. I didn't hear much of what was said

between the customer, the shop foreman and the service superintendent, but I heard enough. The cocky foreman relieved himself of this one for the banker's benefit:

"We won't be able to finish the job by Tuesday, Buddy; but you can have her Wednesday, sure."

"Buddy!" And the foreman was a good twenty years the junior of the banker to whom he was showing so much liberty, equality, fraternity and familiarity. Again I saw "Forbearance" glimmering on the urbane brow. Well, the customer hadn't come here any more to teach a class in deportment than he had comes to enjoy the suave society of the foreman. Doubtless he reasoned thus and let it ride.

I began to look further for some more of this brand of "friendliness" from the employees. Oh, I found it, all right! Never think I didn't hear from it again. Just as the banker had left the repair shop and gained the drive-in, the foreman, evidently under the seizure of a second thought about the work, sent a mechanic to bawl after the customer and bring him back. No; the foreman wouldn't dent his dignity to the extent of going after the customer himself. He preferred to have him trot back. The mechanic stalked after the receding customer and shouted: "Hey, fella! T' foreman wants ta seeya agin about yer car!"

The banker, used to having his own way, a man among men and all that sort of thing, and filled with the divine afflatus of forbearance, wheeled about and returned docilely enough. Probably he wanted to have the job done as quickly as possible, so he could wash his hands of the place for good.

I, too, had had enough, but I had enjoyed myself. I even chuckled audibly as I walked out, thinking there were a few more things that outfit could have done to make it a day.

The superintendent of service could have hammered the banker on the back with a lug-wrench.

The foreman could have jerked the customer's unlighted perfecto out of his mouth and placed it in his

And the greasehound could have swatted him in the eye with a handful of greasy waste.

Then it would have been Perfect.

### Precedent—Picayunishness—Pessimism

(Continued from page 27)

Wetzel knows that conditions are not as good as they might be, but he carefully avoids emphasizing bad news and repeats only the good news he hears. If he learns that one concern is shut down, or working only part time, why, that is too bad—too bad to repeat. But if another concern increases its force, or its dividends, or expands its operations, that tends to equalize matters and it will do some good to mention it.

Gest glooms around the club or the hotel lobby because "what's the use? People ain't buying."

Wetzel goes out and builds good will for his product and his house—and makes an occasional sale.

When business is good, Gest is a fair salesman, and Wetzel is a crackeriack.

Like life, business is pretty much what you make it.

If you can locate no prospects who are ready to buy, go out and sell some on the worth of your product so that when the fair weather salesmen come around they will find their prospects already sold on your proposition as exactly what they want when they are ready to buy.

### Somebody Slipped!

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IN the description of the new Oakland All American Six recently published the engine was said to have a torsional vibration damper. This was an error; the device should have been referred to as a harmonic balancer.

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### Start Now!

Begin Your Balloting With the Special Four-Vote Coupon in This Issue of Motor Age

At Present Writing It is Anybody's Race So Your Votes
Will Prove Mighty Helpful to the Candidate
of Your Choice

W HO are the twenty-seven jobber salesmen in the United States who will be awarded \$2,075.00 in cash prizes in the Motor World Wholesale contest for efficiency and popularity?

If you are a dealer, garageman, salesman, or otherwise a representative of the retail automotive trade, you are entitled to vote. It is not necessary that the subscription to *Motor Age*, or any other of the Chilton Class Journal papers which carry the vote coupons, be in your name.

Only stipulation is that the salesman who receives the votes be employed by a jobber or wholesaler of automotive products.

Contest closes Oct. 15 at noon. You are urged to clip your coupons, fill them in and forward them promptly to the Contest Editor of *Motor World Wholesale*.

Help your favorite wholesale salesman to win a part of the \$2,075.00.

First, second and third prizes of \$100.00, \$50.00 and \$25.00 respectively will be awarded in each of the nine trading zones.

In addition to the zone prizes there will be a special "championship" prize of \$500.00 for the zone first prize winner who scores the largest individual vote. Hence this lucky man will win \$600.00 total.

To date the vote is pretty well split up. There are, seemingly, hundreds of wholesale salesmen desired for winning honors by the retailers of the country.

The vote you send in today may mean everything to your candidate.

The nine trading, or voting zones, are as follows:

NEW ENGLAND: Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut.

MIDDLE ATLANTIC: New York, New Jersey, Pennsylvania.

SOUTH ATLANTIC: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

EAST NORTH CENTRAL: Ohio, Indiana, Illinois, Michigan, Wisconsin.

EAST SOUTH CENTRAL: Kentucky, Tennessee, Alabama, Mississippi.

WEST NORTH CENTRAL: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

WEST SOUTH CENTRAL: Arkansas, Louisiana, Oklahoma, Texas.

MOUNTAIN: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

PACIFIC: Washington, Oregon, California.

In the event of tie vote in any zone, or a tie vote for the Grand Prize of \$500, each tieing candidate will receive the full prize award to which his votes entitle him.

A knife or a pair of shears will cut the coupon. The filling in of the name of your candidate, his address—your name and your address—easy, isn't it?

Do it promptly. Put him in the winning class. He will appreciate it a lot.

Address all vote coupons to the Contest Editor of *Motor World Wholesale*, Chestnut and 56th Streets, Philadelphia.

### MOTOR WORLD WHOLESALE

Popularity Contest for Wholesale Salesmen

Contest Editor

Motor World Wholesale

Chestnut and 56th Sts., Philadelphia

In the wholesale automotive salesmen's popularity and efficiency contest I vote for:

Name of salesman .....

Name of his firm .....

His firm's address

--

Your signature .....

Your firm name .....

Address

M. A., Sept. 1-This ballot is for FOUR votes.

### CAPITOL CAPITAL ALL AROUND 2 4 IS

(Continued from page 33) -

the wall where it joins the floor. This shows up any dirt or refuse. No grease or dirt of any kind stays long on the floor. This clean appearance has a great effect on the customers, many of whom are used to seeing tools, tires and other things scattered about.

The same is true of the battery department. New batteries are kept in their places, and the recharging and repairing departments are models of cleanliness and order. By virtue of Mr. Benedict's arrangement of the building, twice as many cars can now be serviced as was possible under the old arrangement.

The whosesale department, retail department, stock room and offices have been arranged with one thought in mindefficiency and economy of operation with a maximum of service.

The Capitol 24 Tire Co. is owned by E. D.

Olinger, a graduate of Illinois University, and E. J. Gaylord, graduate of Illinois College at Jacksonville, and Washington University at St. Louis, where he graduated in law.

The firm sells Firestone and Oldfield tires, USL batteries and Hex-Dees shock absorbers. Business has grown very rapidly since the formation of the company and a large number of tires leave the showrooms and stockrooms of the firm every day.

Employees are dressed in white uniforms, which are changed frequently. A large fleet of service cars is maintained.



Service station men and garage men from all over central Illinois have visited the Capitol 24 station since its formal opening and many have said that they intend remodeling their places of business along lines as suggested and planned by Mr. Benedict.

Along with the installation of modern equipment and laborsaving devices the employees of Capitol 24 have been schooled in better salesmanship and better service methods. Bonuses in various forms are used to bring

> the sales department and other departments up to a higher grade of efficiency and the results have been satisfactory.

Several thousand people visited the company on the two days of the opening, despite the fact that it rained torrents on the first day. The Illinois State Journal, morning newspaper, got out a six-page section for the company, and the publicity made the opening one of the most talked about events in Springfield auto-

motive circles. A

parade of all new cars in Springfield using Firestone tires was a feature of the opening day.

### Why Customers Leave Home

(Continued from page 37)

Frequently a customer has seen a special body job on a Packard that he or she likes very much. Usually in making the purchase of a car, the customer will speak of such a liking whereupon the salesman will say something like this:

"I think I know just the case you mean. In fact, I believe we have a photograph of that particular car. Just step over here a moment until I look and see.'

He then takes the customer to the display room, opens the cabinet showing the special body work and picks out a sheaf of photos of special bodies by the one maker, including the car in which the customer is particularly interested. Prices are discussed, other photes are examined. Perhaps the customer looks at the photographs of other body makers. And quite often

an order for a special body job on the customer's recent purchase grows out of this attention. Quite often the purchase of robes and other accessories is made at the same time, which could not possibly have been the case if all of these extra features had not been brought together in one room, with the privacy and atmosphere which such a room offers.

Since Mr. Brown has established this special display room for the assembly of all the accessories and odds and ends of potential profit makers for the automobile dealer, several other dealers who have seen it have adopted the idea.

At first this room was on the second floor but this proved to be too far away from the scene of selling activity.

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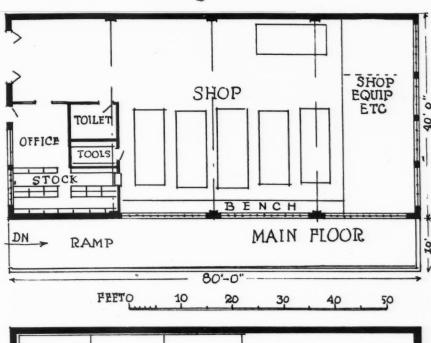
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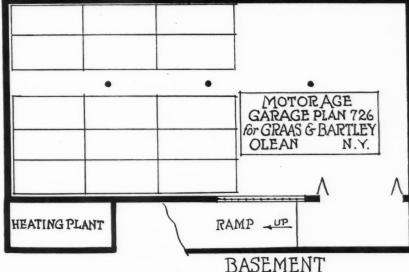
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## Making the Very Best Use of Limited Space

A Storage or Service Garage Should Be at Least Sixty Feet Wide for Greatest Efficiency

By Tom Wilder





Motor Age Garage Plan No. 726

If this building is to be made fireproof, so called, it will probably have a reinforced concrete floor and brick walls with steel sash above the ground. It is hardly worth while making a concrete or cinder concrete roof supported on steel trusses as a small fire of a burning car or two would cause the trusses to

WE are enclosing herewith sketch of a lot 50 x 170 ft. for which we would like a plan for a one-story fire-proof repair shop, main floor and basement.

Main entrance at front and driveway to basement from outside. Spaces for office, toilet, tool room and small stockroom. Building to be approximately 40 x 80 ft.—Graas & Bartley, 330 N. First St., Olean, N. Y.

A BUILDING 40 ft. by 80 ft. is not very well adapted to any sort of automotive business. To be a good storage building it should be 50 ft. wide and to be a good repair shop or general service building it should be 60 ft. wide or a little more.

Where the inefficiency comes in is that the 20-ft. aisle is half the floor space while in a 60-ft. building with car repair spaces on both sides of the aisle the aisle constitutes only one-third of the floor space.

The storage arrangement planned for the basement is not very good but storage in a 40-ft. building is never very good, and there would have to be quite a lot of maneuvering to get cars turned around and backed into position. Conditions could be improved if the building were set back from the street about 16 ft. so that the basement doorway could be where the window now isthe ramp is a 20 per cent grade and so should not be made any shorter. In that way a row of cars could be placed against the back wall and two rows against the front wall instead of three, making them all a little easier to handle.

There is no way of getting to the yard in the rear unless a passage is made through the rear wall directly back of the front entrance. We are wondering if arrangements could not be made with one of your neighbors to enter over their property rather than sacrifice 140 sq. ft. of valuable space. It would be possible to gain a little space by building the first floor out over the basement entrance in order to accommodate more equipment or an electrical repair shop or other feature.

The heating plan is shown under the higher part of the ramp. The chimney could be built into the wall beside the stockroom.

### New Accessories and Devices

### **Tool Closet**

THIS all-steel chest, built with an extra margin of strength, and heavily reinforced at the edges and corners, is designed specially for mechanics, to stand hard usage.

In addition to providing a safe receptacle for tools, it affords a convenient means of laying them out within easy

The body of the box is designed for the larger and heavier tools, while the drawer, which automatically locks with the closing of the lid, is an ideal container for your micrometer, calipers, steel rule and similar tools.

Furnished with stout carrying handles and extra strong hasp for padlock.

Dimensions: 19½ in. by 21½ by 12 in. Depth of drawer, 2 in. All-steel construction throughout. Finish—attractive gun metal; same pyrolin coating used in latest cars. Will not chip. Price, \$12.00. Weight, 23 lb.

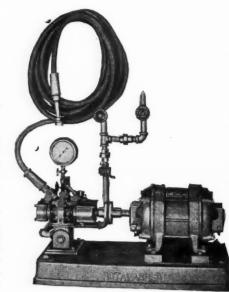


Manufactured by Stevens Walden-Worcester, Inc., Worcester, Mass.

### Rotawasher

THE Rotawasher, manufactured by the Rotawasher Corp., 6007 Euclid Ave., Cleveland, is substantial, sturdy and solid, with a minimum of working parts. Pumping unit is the Northern rotary pump. This pump, which is Timken bearing equipped is used in every battleship in the United States Navy and much of the modern fire fighting apparatus.

Though the Rotawasher is a splendid example of engineering skill, it is simple. The neat rotary pump is connected by a flexible coupling in a straight line drive to a 3 hp. waterproofed motor.



The mere turn of a by-pass valve shifts the water pressure from 50 to 450 lb. per sq. in. and the water flow may be shifted from 2 to 14 gal. per minute.

To shut off the nozzle the motor is shut off which eliminates waste of water and current.

The entire operating cost of the Rotawasher including water and current is said to be approximately seven cents per hour, during which time, six or more cars may be washed, according to the claim of the manufacturer.

The Rotawasher is neat and compact. Mounted on a four-wheel dolly, the Rotawasher, because of its small size and light weight, can easily be moved to any part of a building where washing is to be done.

By the installation of a proper handling system a Rotawasher with a single nozzle will easily handle the work of a large majority of wash racks.

Washer can also be furnished in sizes from two-nozzle up to any number of outlets.

The Jetspray nozzle with its troubleproof sleeve coupling delivers a smooth, solid bar of water or a fine spray; it is controlled by a twist of the wrist.

### Counter Card

IN a new counter card which is being distributed to dealers, J. H. Williams & Co., of Buffalo, has succeeded in ingeniously combining a number of desirable elements. Though occupying little space on the counter, the new card is large enough to carry a highly effective pictorial and verbal presentation of the "Superrench" selling story. Its wording and illustration make an instant tie-up with Williams advertising. In addition, clips are provided for fastening a "Superrench" in place

### Standitall Radiator

THE J. C. Black Mfg. Co., Inc., of Oil City, Pa., has placed on the market the Standard Auto Radiator. This radiator is designed and built to stand the hardest usage. The separators or dummies on the Standard are narrow strips contacting with the waterways in front and back only. This allows that portion of the waterways which carries the water to be reached by the forced draught of air through their entire length.

This new construction, together with the special patented shape of the waterway itself, allows for expansion of the core which results if the water in the radiator is frozen. When again thawed out, all parts resume their normal position. Maker states that the radiator may be frozen repeatedly without damage. Made for small cars or large, trucks, buses, tractors, airplanes. Is said to be equally efficient with or with-

out a water pump.



### Air Chuck and Tire Gage

THIS device, known as the Chuk-N-Gage, which combines two essential air service tools, the air chuck and the tire pressure gage, is made by Andrew-Boyd & Co., 341 East Ohio St., Chicago. It is attached to the air hose as though it were a conventional chuck. The air nozzle is adjustable so that valve stems in any position or at any angle can be easily reached. Air is controlled conveniently by a trigger operated from a pistol grip. When inflating tires a slight touch on the trigger gives instant reading of tire pressure, unaffected by tank pressure.

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Simply and ruggedly constructed, the device is built to withstand hard usage. It is fitted with an unbreakable crystal and all exposed parts are of polished non-corrosive metal. The gage registers from 1 to 120 lb. pressure.

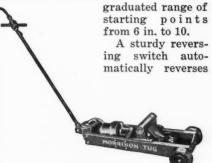
### Offered the Automotive Trade

### Electric Service Jack

THE Tug electric service jack, which operates from any light socket, is manufactured by the Morrison Jack Co., Alliance, Ohio. This jack is equipped with a high-speed universal motor; operates on either A.C.



40 ft. of Packard Flex-O-Cord cable and a two-part plug at each end, protected by a C. & E. safety handle and plug protector. It has an 8 in. lift with a



its action when it has reached the limits of its travel in each direction.

### Tire Changing Machine

THE Havana All-In-One tire changing machine is manufactured by the Havana Mfg. Co., Havana, Ill. This device, which comes with two hand tools, handles all styles of tires and rims with ease, regardless of whether they are solid or spit rim, wire or disc wheel, and also regardless of their size. It operates in the following manner: By turning handle bar to the right, the working arms are pulled in. The hooks on the working arms pull in the split rim, and reversing it, pushes the rim back in place. For solid rims, such as are found on some trucks and cars. draw the working arms in to center, push out the loose toggle on working arm to support the rim until the working arms are reversed, which tightens the rim firmly, then put back the toggle, leaving the rim supported firmly, so that the tire may be forced off with the hand tool.

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For wire wheels the operation is fully as simple: It is merely necessary to lift the loose handle bar off, then the



three prong cone clamp, and put on the wheel with the cone point down in the hub. The key is put through the upright shaft and the handle bar turned to the right until the wheel is firmly locked.

Disc wheels are taken care of in much the same manner, except that the long points of the cone clamp are put down, to hold the wheel firmly on the stand. With the hand tool any tire may then be removed regardless of how rusty or tight it may be.

### H. & W. Reamer

THE Hanlon & Wilson reamer has spiral blades and 1/16-in. expansion making it a line that has a wide range of uses. In addition it is equipped with a conical pilot that centers the reamer in holes of variable diameter within the range of the reamer.

The reamer is manufactured in standard sizes, %-in. to 2-in. varying by 1/16-in. Other sizes are considered special and made only to order. They are also manufactured without pilots if desired, and for machine reaming with either straight or taper shanks.

These reamers are particularly adapted to reaming holes containing oil grooves or cavities which render reaming with straight blade reamers unsatisfactory.

Reamer shanks are long enough for use in reaming-machines.

Manufactured by Hanlon & Wilson, 321-323 Pennwood Ave., Wilkinsburg, Pa.

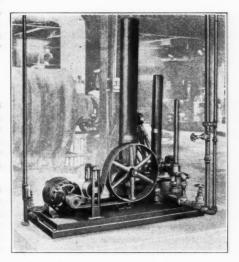
### Portable Paint Spray

THIS is a new portable spray-painting outfit manufactured by the Matthews Mfg. Co., Newton, Iowa, designed primarily for fender and wheel touch-up and painting. The device, which weighs but 50 lb., is portable. It is mounted on a steel adjustable tripod, ball bearing swivel, has a storage tank 6 in. by 20 in., a motor, compressor, pop-off valve, pressure gage and a DeVilbis touch-up gun on the end of a 12-foot air hose.

### Car Washer

THE pump of this car washer is so designed that it will handle 300 lbs. pressure without undue strain, all the shocks being taken up by the Goulds' regulator cushioning chamber and discharge cushioning chamber. In addition, the Goulds' pressure regulator and unloader relieves the pump of load and strain for at least one-half of the operating period. The pump is a single cylinder double-acting type. There is but one plunger, and this is inside, packed to prevent leakage around the pump. There is only one place to oil, the crankcase, and this holds enough oil to last six months. The pump is belt driven. The belt is short and all slack is taken up by the floating belt tightener. There are no gears or chains.

Motor is standard make, capable of caring for maximum power requirements.



The pressure regulator used on the Goulds' car washer was designed especially for this service. When pressure in the cushioning chamber reaches about 350 lbs., the pressure regulator opens and allows water to by-pass back to the suction. When guns are partially closed, the excess water not required merely circulates. When guns are entirely closed, all the water circulates. In this case, there is practically no load (only 30 lbs.) on either pump or motor. This prevents wear on pump mechanism and saves electric current. When guns are opened, 300 lbs. pressure is always ready for washing service.

Goulds' washing guns are of the pistol-grip type, correctly balanced and made easy to handle. They are capable of shooting a driving stream of 300 lbs. pressure, or a fine misty spray. A slight turn of the knurled handle controls the pressure.

Manufactured by Goulds Pumps, Inc., Seneca Falls, N. Y.

### Readers' Clearing House

### Questions and Answers on Dealers' Problems

### Unbalanced Wheels Cause Shimmy

I have a 1926 Hudson coach that shimmys badly when driven fast over rough or chuck holed roads. I have replaced the spindle and tie rod bolts and bushings; aligned the wheels both for toe in and camber; have replaced all working parts in the steering gear box with but small results. I have also tried wedging the rear springs and the rear of the front springs with the idea that perhaps they had sagged, but no reslts. Can you tell me how I can check to see if the springs have sagged, or if the front axle is not properly tilted? In other words, so that the castor is incorrect. Would also appreciate any information that you can give me about checking the rear springs for sagging. I might mention that I have replaced all the shackle bolts and bushings also, without any change in performance.-Ray Scott, c/o Scottie's Service Garage, Larned, Kansas.

OUR problem seems to be a matter Y of unbalanced condition in the wheels. This can be brought about by placing shoes or large vulcanized patches in the casing without balancing up the wheels. As a rule, if a large patch is put on a casing it is advisable to install the patch so that it is directly opposite the valve stem, which in most cases will maintain a fairly balanced condition. We would suggest that you jack up the front end of the car and see that the front wheel bearings are perfectly free and yet without any noticeable play. Then, balance the wheels by attaching lead washers or plates to the rim, so that there is no tendency for the wheels to settle. This will, in all probability, overcome your trouble. The only way that you can check the rear springs for sagging condition, is to measure the difference in distance between the springs and the frame on your car and on a similar model with new springs. The sag of the front springs can be checked in the same way. However, what you are more interested in is the castor of the front wheels. The king pins of the front axle should incline toward the rear of the car at the top just 2 deg. This can be figured out with a carpenter's scale, straight edge and protractor. We are giving you information by separate letter regarding equipment which handles this, more accurately, and much faster.

### Chrysler "72" Engine Details

I just got my August 18th issue of MOTOR AGE and was mighty interested in the story of the Chrysler "72." Can you tell me a little more about the Chrysler engine and show an illustration of this new engine?—T. B., Denver. Colo.

WE are showing cross-sectional view of the Chrysler "72" engine in accordance with your request. As you will see this is an "L" type, watercooled, six-cylinder, four-cycle engine. The bore is 31/4 in., the stroke 5 in. The S. A. E. horsepower rating is 25.35 or the actual brake horsepower developed is 75. This engine is carried entirely on rubber mountings. The drop forge crankshaft is not only statically and dynamically balanced as in the Model "70" but is now counterweighted the same as the engine in the Chrysler Imperial "80." The pistons have five concentric rings. The size of the inlet valve has been increased from 1 7/16 in. to 1 9 /16 in.

### How Horsepower is Figured by the N. A. C. C.

We are Dodge Brothers dealers and would you kindly advise us how you figure your N.A.C.C. rating on all automobiles. For instance, in Motor Age specification tables, take the Pontiac with a bore of 3½ inches and a stroke of 3¾ inches, with a piston displacement of 186 cubic inches—you rate at 25.3 hp. Then on the Dodge Brothers Senior Line, with a bore of 3½ inches and a stroke of 4½ inches giving a piston displacement of 224 inches—you rate at 25.3 hp. also. The Dodge Senior has ¾ of an inch longer stroke than the Pontiac, and yet you rate them both the same.

We are just curious how you figure this. Kindly let us know.—Tom Hamilton, 107 West 7th Street, Concordia, Kansas.

THE S. A. E. or N. A. C. C. formula for hp. calculations was worked out many years ago on the assumption that the piston speed is 1000 ft. per minute at the maximum horsepower, and that the mean effective pressure is 90 lb. per sq. in. and a certain per-

centage of developed power is lost in friction. Inasmuch as piston speeds of modern engines run up as high as 1600 to 2000 ft. per minute, and even more, and the mean effective pressure per sq. in. frequently exceeds 120 lb. it will be seen that this formula is not altogether accurate as to the actual horsepower, which would be considerably more. However, it is used for estimating and serves its purpose in this respect.

The factor of piston speed takes in both the length of the stroke and the speed of the crankshaft in revolutions per minute. The shorter the crank the quicker it can be turned. The longer the crank the more piston travel per stroke; therefore, the crank can travel more slowly and still the piston will travel the same distance. As an example: suppose that the stroke of an engine is 4 in., it would have to make three strokes to travel 12 in. or 1 ft. because each stroke is 4 in. in length. Take on the other hand an engine with a stroke of 6 in., it would have but two strokes to make for each 12 in. or 1 ft. of travel. Therefore, it is evident that the shorter stroke the faster the crank must move to cause the piston to travel 1000 ft. in the specified time.

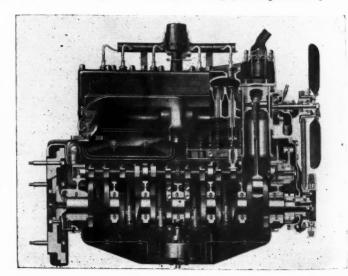
The S. A. E. formula is used by all leading manufacturers and by the license offices in different cities. The formula is expressed as follows:

Hp. = (Diam. in in.)  $^2$  X No. of Cyl.  $^{2.5}$ 

or in other words more briefly stated it equals  $\frac{D^2N}{2.5}$  Where D square is the cylinder bore squared, N the number of cylinders in the engine and 2.5 is a constant which has been worked out for this formula.

With the many variables that enter into engine design, it is practically im-

The powerplant of the Illustrious New Chrysler "72" is unusual in that it incorporates many of the time tried features of the old Chrysler "70" plus refinements that have made good in the Chrysler Imperial "80"



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### Wiring and Specifications of Flint 6-40

I am a constant reader of MOTOR AGE and am coming to you for a little help. I would like to get a wiring diagram of the Flint Model 6-40 car and also the complete mechanical specifications of this car. I will gladly send payment for this service if you will let me know what the charge is.—James R. Frole, P. O. Box No. 185, Duquesne, Pa. THE wiring diagram requested is shown herewith. There is no charge to MOTOR AGE readers for this service. The specifications for the Flint Model 6-40 are as follows:

Wheelbase—115 in. Tire Size—30 by 5.2.

Engine make and model — Continental 6-W.

ental 6-W.

Number of cylinders—6.

Bore and stroke—3½ by 4¼.

Rated hp.—23.4.

Engine type—vertical.

Point suspension—4.

Cylinder head—Detachable.

Valve arrangement—L.

Front end drive—Chain.

Make of chain—Morse.
Piston material—Cast iron.
Number of crankshaft bearings—4.

Oiling system—Pressure to all crankshaft and connecting rod bearings.

Cooling system—Pump.

Carburetor make and size——Tillot son, 1 in.

Fuel feed-Vacuum.

Ignition system—Auto-lite, battery. Spark control—Hand.

Generator and starter make—Autolite.

Battery make-U. S. L.

Battery voltage and capacity — 6V-92 A. H.

Clutch make and type—Own, single plate.

Rear axle—make and model—Adams' Special.

Rear axle type—¾ floating. Rear axle gear ratio—4.77. Propulsion taken by springs. Torque taken by springs.

Brakes—Four-wheel.
Application—Hydraulic.

Application—Hydraulic. Emergency brake—On driveshaft. Front axle—Adams—I-beam. Steering gear—Warner Corp.

Steering gear type—Screw and nut. Front springs—½ elliptic—34 % in. long.

Rear springs-1/2 elliptic-50 in. long.

### Clicks and Vibration In This Car

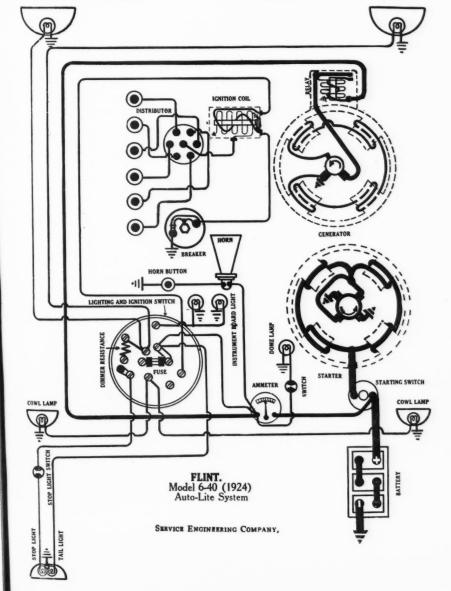
As I am leaving on my vacation the last week of this month I would like to get some information from you promptly in order that I can get my car in shape. I have a 1925 Overland, Model 91 which was just overhauled about a month ago. At this time the bearings were tightened, valves ground, and new piston rings put in.

In the last week I have noticed that when urging the car along a little or going up a slight incline there is a clicking noise that sounds like it might be in the valves. Once before I had this same noise, but when I ground the valves it stopped for about three months, but when it started again I had the car overhauled, but this time the noise started about three weeks after the car was taken out of the shop. Please explain what might be causing this noise.

Also, in the front end of my car there is a bad vibration. I have tightened everything and even put in Dunn's Counter-balances, but the vibration continues.—Harold Neff, c/o Akron Tire & Vulcanizing Co., 932 Jackson Blvd., Chicago, Ill.

W<sup>E</sup> will give you such assistance as we can immediately, but you will appreciate that this long distance trouble shooting is difficult at that. What one might call a light click, another one would call a light, but sharp knock. If this is actually a light clicking sound it is entirely possible that the push rods have worn in their guides and are working from side to side. You can check up on this quite readily by operating the engine with the valve cover plate removed and holding the butt end of a hammer handle against the push rods as someone drives the car at the speed that causes knocking. If this relieves the trouble you may be sure that reaming out the guides and installing over-size push rods will cure the knock or click permanently, though we don't believe that you would care to go to that trouble with your vacation so near at hand.

Another light knock that would probably develop is that of loose piston pins which will show up on a light pull as you have described. You can check for this by shooting out one or more cylinders at a time and seeing whether or not the knock continues. The vibration that you have may be partially the characteristic of a four-cylinder engine, and, on the other hand, it is quite possible that the reciprocating parts are unbalanced. If this vibration has developed just recently, it is most likely due to uneven compression which results in uneven power impulses with the consequent development of objectionable vibration. If the vibration has been present ever since you have had the car, it is more likely that the reciprocating parts are unbalanced, and



the only cure is to tear down the engine and see that all pistons weigh the same within one-half ounce, and that all rods weigh the same within one-half ounce. Of course, installing Dunn's counterbalances may have made a great advantage, provided you are sure that they are on as they should be. However, the installation of counter-balances is rather a ticklish job, and after the counter-balances are installed it would be very desirable to see that the shaft is balanced both statically and dynamically. However, to do this is a rather complicated job, requiring the use of expensive machinery, and we do not know where you could get the use of this equipment without sending the shaft to the manufacturer of the counter-balances or to the factory. When you say that you have tightened everything-we take it that you have seen to it that the engine is perfectly tight in the frame of the car-for any looseness here would cause bad vibration.

### Water Clogs Oil Screen

We have a 1923 early model Maxwell that gives us a great deal of trouble with the oil. The engine has been rebored and honed and new pistons and rings have been installed. The oil pump shows 30 lb. pressure. The engine is thoroughly clean and is not using any oil as the oil is changed every 500 miles and none added in between times. However, the screen on the oil pump clogs about every 75 to 100 miles and has to be cleaned before any pressure is shown on the gage. I have tried four or five different brands of oil-all Easternwith the same result. The accumulation on the screen has the appearance of lint of fibre. The timing gears are of composition but show no signs of wear to produce lint. In fact, the engine was reconditioned for this trouble of oil screen clogging but it has not eliminated the trouble. The engine runs fine with the exception of this problem. The car has been in a number of shops. However, none of them can diagnose the trouble or remedy it. Can you give us any advice or suggest a remedy?-E. L. Knapp, c/o Knapp & Ronneberger, Anacortes, Washington.

WE believe that what is accumulating on your screen is an emulsion of water and oil. Emulsified oil may appear to be fibrous or slimy and we believe that a small amount of water is working into your crankcase. If this difficulty developed in winter we would be inclined to blame condensation for it, but under the circumstances we feel that you will probably find a small leak in the cylinder block or head casting, or in the gasket between the block and the head.

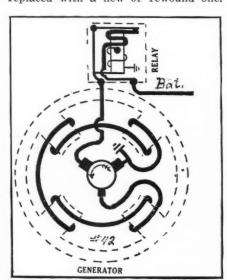
We would suggest that you try draining a small amount of oil from your crankcase at intervals of every 50 miles or so to see if any water is contained in it. If there is, the only thing for you to do is to locate and stop the water leaks. The timing gear is the only part of the engine from which lint could come and we have yet to see a case of a timing gear giving off lint in this objectionable way. Accordingly,

it would be worth your while to drop the pan of this engine and see that all oil lines are blown out so that they are absolutely clean. In wiping out the inside of the engine be sure not to use cotton waste or rags that have any lint on them. The best procedure would be to wash out the inside of the engine with a pail of gasoline and a paint brush and let it dry by evaporation. This would assure you that all lint had been removed.

### An Electrical Question From India

We have an Autolite generator from a Model 91 Overland for repairs. This generator does not give any current. The field tests 6 amp. at 6 volts directly across all of the field coils. The brush tension and the commutator are O. K., but sometimes sparks show between the commutator segments. I have under-cut the mica and the armature is O. K. When testing this does not motorize. The armature bearing is loose in the end bracket and once we put a strip of copper around this bearing to tighten it and center it in the bracket, the generator did motorize, but drew 16 amp. at 6 volts, and the ammeter was flickering badly, Sometimes it will not motor at all and then draws 3 amp. and at other times will draw 20 to 25 amp. The front ball bearing housing is a little worn, so that the entire bearing race turns. Please show a wiring diagram of this unit and tell us what we should do to fix it .-S. Sunder Rao, Mercara, Coorg District,

THE first thing to do is to test the armature of this generator, as it seems from your report that this must be at fault. With a pair of 110-volt test points in series with 110-volt light, check from the shaft to the commutator. The test lamp should not light up. If it does it indicates that the armature is grounded, in which case it should be replaced with a new or rewound one.



If there is no indication of a ground, place the armature on a growler and check for shorts by holding a hack saw blade immediately above the armature. Any violent vibration of the hack saw blade indicates a shorted coil, in which

event the armature should be replaced. Another possibility is a ground in the brush holder together with an open armature, so it would be well to take the voltage drop from segment to segment while the armature is on the growler. This should be uniform all the way around the commutator. If you do not have facilities for making these tests, it will be well worth your while to get a rewound armature, or a new one to try, or if that is not available you should get an armature from another car, as we feel quite certain that the trouble is in the armature.

It would also be well to test the brush holders for shorts with your 110-volt test points. This generator should motor smoothly and with a uniform current draw of 4 to 5 amp. at 6 volts. In testing out the field winding each coil should draw 8.8 amp. at 6 volts, or all four fields in series should draw 2.2 amp. at 6 volts. You say that a field test that you made drew 6 amp., but we do not know whether you took this test over all four fields or over one, so would suggest that you check again, using the figures that we have just given you.

### Wants Specifications of New Ford

Please publish in your next issue of MOTOR AGE the full specifications of the new Ford car that the Ford dealers are taking orders for.—William H. Owens, St. Paul, Minn.

BE assured that just as soon as the information on the new Ford is out MOTOR AGE will carry full details. At the present time no one outside of the Ford organization, at least, knows exactly what the new car will be like.

There will probably be many last minute changes in the new car so even what information is available now may be all wrong within a few weeks.

### "If Winter Comes"

HAVE read with interest an item in Motor Age in regard to using a small reflector type heater in front of the radiator to help start the car. After leaving a Chrysler 70 for about 10 days I have often found it hard to start. It would take a lot of spinning with the starter. I have used a small reflector type electric heater which costs \$4.75. I place this under the hood against the engine with the reflector pointing toward the carburetor and as close to the carburetor as possible. I let this heater operate for from 30 min. to 2 hours and then have no trouble in starting. Manifold, carburetor and side of engine will be warm and sometimes hot. This heater consumes 600 watss which at 6 cts. per kilo-watt hour costs 3.6 cts. per hour to warm the engine. It gets very cold here, often in December and January the thermometer registers 10 to 35 below zero.—G. M. Satterstrum. Alamosa, Colo.

### Special Watson Stabilator Designed to Meet Small Car Needs

A NEW Model Stabilator designed specifically to meet the requirements of light, short wheelbase cars and designated as the Type AA, is being introduced by the John Warren Watson Co., Philadelphia. The list price of a set of four complete with all fittings, is \$28.

Fundamentally the operation of the new AA is the

same as that of the larger Stabilator, which has been on the market for a number of years, in that the control force applied to the car spring is directly proportional to spring deflection, being a maximum when deflection is greatest and decreasing uniformly as the spring returns to its normal position. However, because of the more exacting requirements of the light, short wheelbase car from the spring control standpoint, greater sensitivity has been built into the device.

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sters rum. The increased sensitivity is due in part to the use of smaller brake drums giving a greater variation between the maximum and minimum control forces developed and to the higher coefficient of friction of the brake shoe material.

The new AA is made in two sizes, the smaller being designed for

front spring control and the larger for use at the rear springs. Each set of four includes two of each size. The housing diameters of the large and small AA models are  $5\ 3/16$  and  $4\ 3/16$  in. respectively as compared with the  $5\frac{5}{8}$  in. diameter of the large Stabilator, which gives an idea of their relative sizes.

Among the new features of the AA are an entirely new brakeshoe, a positive seal protecting the interior of the device against dirt and water and a new method of tension adjustment. In the brakeshoe used in the

large Stabilator small buttons of a specially developed material are inserted in the face of the shoe to prevent squeaking and chattering. In the AA, however, this special material is impregnated in the shoe and diffused through its entire structure.

The positive seal is provided by a strip of rubberized fabric attached to the back of the brakeshoe. This strip

is wider than the shoe so that flexible flaps are provided, running the entire length of each side of the shoe. These flaps contact with the inner faces of the housing providing a seal against the entrance of dirt and water.

Adjustment of the new AA has been greatly simplified. There are three eyelets in the strap, two of which are shown in the accompanying illustration representing light, medium and tight adjustments. To change the tension, the strap is released at the axle and allowed to run into the device or else it is withdrawn from it until the adjustment that is desired by the operator is obtained as indicated by the position of the eyelets.

In discussing the introduction of the new device, Mr. Watson expressed the opinion that there is a

large potential market for the light short wheelbase cars among people well able to afford larger and more expensive cars. He feels that this class of owners like the ease of handling and maneuverability of the small cars but have not purchased them because they do not provide sufficient riding comfort.

Mr. Watson believes that the development of spring control methods designed specifically for the lighter cars now being sold will stimulate the sales to a considerable degree in the small car field.



### Put Yourself in the Prospect's Place

(Continued from page 35)

not have to apologize for its appearance, either.

From the standpoint of good business, it appeared to the general manager that the house was passing up good and easy profit by not putting all cars in just that same condition. Buyers did want appearance and stood ready to pay for it.

This car had been driven 10,000 miles. Mechanical attention cost in the neighborhood of \$20. The hood was raised to show the condition of the engine, the original Duco finish looked as good as new; a possessive appeal was created; the car sold—all very simple.

"There were two distinct thoughts in mind in this particular transaction," said General Manager Emery. "We wanted to show the public how the Hupmobile would look a year after purchase, by placing the used car beside one of the new and latest models. Our

experience suggested that putting cars in the best possible condition was good business and productive of larger returns. Our outlet for used cars, thoroughly reconditioned, and, made as good as new, brought us a larger return. On the other hand \$200 more in the price actually brought a different and more desirable type of prospects. Once they were in the salesroom we had an opportunity to sell them something and in the long run we secured prospects for new cars, some of which we sold.

"Another angle is that the better the appearance of the car throughout, the better the impression we make with the public, for it is worth much to us to have prospects assert that we carry the best in used cars.

"Every used Hupmobile is inspected as carefully as a new car and we neglect nothing that can add to the value of the car and satisfy the customer.

"We assert without hesitation that painting and reconditioning pay."

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We Knew Where He Was All the Time—Honest, No Kiddin'

WASHINGTON, D. C.—You can advise L. B. D. of Chicago, that Jack Hiscock is, like you, a resident in the "City of Brotherly Love." In any event he was with the Eugene McGuckin Advertising Co. at the time of the recent Stutz 24-hour trials and was still chuck full of racing information running from the present day back to 25 years.—Val Haresnape, Secretary, Contest Board, American Automobile Association.

### "They Say That Jack Hiscock He Ain't Got No Style"

PHILADELPHIA—And "Jack Hiscock was wanted at the grandstand," too, at the memorable race meet at Cape May, N. J., in August, 1905—the manifold calls including the possibility of raising money to help Henry Ford launch his "dream car" and being compelled to listen to Henry Ford outline his plans of the then unknown Model T!

"L. B. D." of Chicago may have been one of the men approached to invest \$2,000 and laughed off his opportunity for a fortune!

Val Haresnape has disclosed my whereabouts to Editor "Johnnie" and he displays the qualities of A.A.A. cooperation as did his predecessors of yesteryear—good old Batchelder and Sam Butler of gay and happy memory, who referred and timed respectively the activities of Ford and Chevrolet.

And now history repeats itself—a bromide, I believe? The cartoon of Ford and Chevrolet in a race meet at Cape May in 1905!

A relative handful of people interested itself in the "old contraptions" at that time and now we are on the verge of the greatest race ever staged—Ford versus Chevrolet, with the whole world awaiting and a-wondering.

But please assure yourself, Mr. Editor, and my Chicago friend, L. B. D., that up to this present writing—noon, Saturday, Aug. 20, 1927—I have not been called "to the grandstand" by either contesting interest for financial or any other kind of aid, as was the case in 1905.

In that detail at least, history has

not repeated.—John H. Hiscock (Jack Hiscock of 1905) Vice-President, The Eugene McGuckin Co.

### We Regret This and Hope You Will Pardon the Error

TOLEDO, OHIO—On page 12 of the Aug. 18 issue of Motor Age there appeared an article entitled "Davies in Whippet Makes Speed Record" containing the statement: "Harry Davies, a registered A.A.A. racing driver," set a new official speed record between Kansas City and St. Louis in a stock Whippet car.

We yesterday received a wire from Val Haresnape, Secretary of the Contest Board of the A.A.A., very properly objecting to the unsanctioned reference to the A.A.A. in this article. Being familiar with the Contest Board's rulings, we were certain the article did not emanate from our organization, nor from that of our client, Willys-Overland, Inc. However, we made a careful check of all our records and of all channels over which we have control, and this morning were informed in a wire from G. H. Bryant, head of the Publicity Division, that the story was released by MOTOR AGE by the publication's Kansas City representative.

Mr. Haresnape informed us that the Contest Board is obliged to make a written denial, both to the technical and daily press, with respect to its having had anything whatsoever to do with the article or its release. In justice to our client, Willys-Overland, we wired Mr. Haresnape this morning to kindly withhold, in order to give us the opportunity of writing to you, requesting that MOTOR AGE in its first available issue make proper correction by stating that the article as it appeared was incorrect in mentioning the A.A.A. and in giving any impression that the A.A.A. sanctioned or approved the article. We feel sure that you will wish to immediately make this correction along the lines here stated and will greatly appreciate your cooperation in



seeing that this is handled promptly, and we will await your reply accordingly.

We are sending a carbon of this letter to Val Haresnape at Washington, for his information and record, and would greatly appreciate hearing from you by return mail.

By the way, this incident only serves to again remind us all who are deeply interested in the welfare and development of the motor car industry, that we have in the A.A.A. Contest Board a most valuable aid in keeping properly regulated the kind of information that will help the industry if properly disseminated. The A.A.A. is naturally very anxious to promote the welfare of the automobile industry and is opposed to trials or stunts involving the use of public highways at illegal speed limits, and in this we believe that Motor Age and all the other automotive trade papers should lend hearty support. We feel sure that you personally are with this proposition 100 per cent also.

Will you kindly let us have your views on this? We want to be sure that MOTOR AGE and any other Chilton publications that may have this item make proper correction so that all concerned will be fully satisfied, and that any possible recurrence of such an error will be guarded against by proper instructions being issued to the various representatives in the field.—S. R. Swiss, United States Advertising Corp.

### A Pair of Wees or Wublias, As You Will

CHICAGO, ILL.—I like the variety of the covers and the virility of the get-up of the pages of the new MOTOR AGE. Variety is the spice of the program as well as life.—Wellington Gustin.

### He Likes What We Have; We Like What He Says

PARIS, KY.—Please let me congratulate you upon the news pages of Motor Age. I think you should be especially commended for the comparisons you are drawing of the industry as of today and as a few decades or quarter of a century ago. The idea of placing the date at the end of the article is intriguing. I get a laugh at the end for my amazement and wonder at the beginning of the article.—W. D. H.

### Prices, Weight and Equipment of Current Passenger Car Models

	Passengers and Model	F.O.B. Price Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Shipping Weight	Standard Equipment
No new models or price changes since last week have been	3p. Ctry. Club 5p. Bro. Sedan 7p. Sedan  CADILLAC "Standard" 132" W.B.	1925 4 1995 4	4050 a	ghmnor ghjmnoru ghmnort	CHRYSLER "52" 5p. Touring 2-4p. Roadster. 2p. Coupe. 5p. Sedan. 5p. Sedan. 5p. De L. Sedan. 5p. Touring 2-4p. Roadster. 5p. Sedan. 5p. Sedan. 2-4p. Roadster. 5p. Sedan. 5p. Sedan. 5p. Sedan. 5p. Sedan.	725 725 735 795 875 1095 1175 1145 1245	2 2210 2 2355 2 2350 4 2455 4 2390 4 2645 2 2625 2 2770 4 2840	ar ar ahr aghnr aghnr aghnr aghnr aghnr	DODGE BROS.  108" W.B. 5p. Sedan 5p. DeL. Sedan 2p. Coupe 4p.Cab. Rdstr "Senior 6" 4p Cab. Rdstr 5p. Sedan 4p. Coupe	875 975 855 955 1595 1595 1570	4 3412	Cehmnrtx Cehmnrtx Cehmnrtx
received up to the time of closing these tables.	5p. Brougham 2p. Coupe 5p. Victoria 5p. Sedan 2p. Sp. Coupe 5p. Sp. Sedan 138" W.B.	3195 2 3250 4 3500 2	4190 a 4270 a 4460 I	ghilnprtx ghlnprx ghlnprtx ghilnprtx Deghjklmnp rx Deghjklmnp rtx	"72" 2-4p. Roadster 2-4p. Sp. Rdstr 4p. Coupe 2-4p. Coupe 5p. Roy. Sedan 2-4p. Con't Coupe 5p. Crown Sedan "80"	1495 1525 1595 1545 1595	2990 23185 23185 43290 23100	aeghmnrwx aghmnrux aghmnrx aghmnortx aghmnrx aghmnortx	du PONT "E" 4p. Roadster 5p. Touring 4p. Coupe 5p. Sedan 5p. Con. Sedan	\$2800 2800 3200 3400 3750	4 3850 3850 4100	afghkmn afghkmn afghkmnt afghkmnt Bfhgkmnt
	7p. Sedan. 7p. Imperial "Custom" 132" W.B. 2p. Roadster 2p. Conv. Coupe 138" W.B. 7p. Touring 4p. Phaeton 4p. Sp. Phaeton		220 a 300 a 1285 a 1275 a	ghlnprtx ghlnprtx eghlmnprx eghlmnprx eghlmnprx eghlmnprx eghlmnprx	5p. Phaeton 2-4p. Roadster 7p. Phaeton 2-4p. Sp. Roadster 5p. Std. Sedan 5p. Std. Landau 7p. Std. Sedan 5p. Sedan 5p. Sedan	2495 2595 2645 2695 2895 2675 2795 2895 3195 3295	2 3805 . 4115 . 3805 . 4240 4 4155 4 4215 4 4370	aghlmnoprtx	ELCAR "6-70" 5-7p. Touring 4p. Land. Rdstr 4p. Brougham 5p. Sedan "8-82" 5-7p. Touring 2-4p. Roadster	\$1275 1475 1295 1395 1645 1870	4 2/30	ahimnr ahimnor ahimnor aeghmnr
Passengers and Model Standard Equipment	5p. Coupe	3855 3995 4125 4	4465 a 4465 a 4580 a	rx eghlmnprtx eghlmnprtx eghlmnprtx eghlmnprtx	7p. Sedan	3295 3095 3495 3595 3595	4 4370 2 4220 2 4065 4 4260 4 4450	aeghlmnoprtx aeghlmnoprtx aeghlmnoprtx	5p. Brougham. 5p. Sedan. "8-90" 7p. Touring. 4p. Land. Rdstr. 5p. Brougham. 5p. Sedan. 5p. Sedan. 7p. Sedan.	1595 1790 2465 2295 2195 2265 2465 2765	4 3675 2 3620 2 3710 4 3895	agehmnor aeghimnor aeghkmnra aeghmnra aeghimnor aeghimnor aeghkmnor
AUBURN  "6-66" 2-4p. Roaster \$1095 5p. Touring 1145 4 aeghrw 2-4p. Cabriolet. 1295 5p. Sp. Sedan 1195 p. Sedan 1295 4 3080 aeghr 4 3080 aeghr	CHANDLER "Big Sir" 2-4p. Roadster 7p. Touring 5p. Met. Sedan 4p. Coule	1695 4 1495 4	3200 A 3360 a 3570 a 3485 a	hmnw hjmnu	CUNNINGHAM  7p. Touring  4p. Sp. Touring  4p. Coupe	6150	4 4500	Ceghjklmnp rsx Ceghjklmnp rsx Ceghjklmnp rtx	ERSKINE "6" 5p. TourerSpt. Rdstr2p. Bus. Coupe 2-4p. Spt. Coupe 5p. Cus. Sedan	\$915 965 895 965 965	2 2265	aehmnr B aehmnr aehmnr achnor
Royal Sedan 1795 ahmaptx 5p. Wand. Sedan 1345 4 3040 aeghr "8-77" 24p. Roaster 1395 2 aeghmnrw 5p. Touring 1445 4 aeghmnrw 24p. Cabriolet 1595 5p. Sp. Sedan 1495 4 3350 aeghmnr 5p. Sedan 1695 4 3390 aeghmnpr 5p. Wand. Sedan 1745 4 3390 aeghmnpr 4 3390 aeghmnpr 5p. Wand. Sedan 1745	4p. Coupe 3p. Ctry. Club. 5p. Met. DeL. Sed. 7p. Sedan DeL. Royal Sed. "Spec. Six" 5p. Touring. 5p. DeL. Touring. 2-4p. Rdstr. 5p. Sportster.	1675 2 1595 4 1795 4 1795	3435 a 3570 a 3725 a a 2475 a 2565 a 2470 a	hno himnoty hmnotuy hmnptx h	6p. Limousine	8100	4 5000	Ceghjklmnp rtx	ESSEX "Super Six" 2p. Speedabout 4p. Speedater 2p. Coupe, cloth 2p. Coupe, leather 5p. Coach 5p. Sedan	\$700 835 735 750 735 835	2 2330 2 2330 2 2450	amnr amnr ahmnr ahmnr ahmnr ahmnru
24p. Sp. Rdster. 5p. Touring	5p. Sedan. 3p. Coupe. 2-4p. Coupe. 5p. DeL. Sedan. 3p. DeL. Coupe. 2-4p. DeL Coupe.  "Roy. St. 8" 7p. Touring. 4p. Coupe. 4p. Coupe. 4p. Cupe. 4p. Ctry. Club. 5p. Sedan. 7p. Sedan.	1035 2 1135 1135 4 1125 2 1235 1995 4 1995 2 1995 2 1995 2	3645 a 3435 A 3610 a 3610 a 3760 a	ih ih iht ih	DAVIS "92-27" 5p. Leg. Tour 5p. Sedan 5p. Imp. Sedan 5p. Imp. Sedan 5p. Roadster 5p. Touring 5p. Sedan 3p. Coupe 5p. Imp. Sedan "98-27" 5p. Polo Rdstr 5p. Touring 4p. Coupe 5p. Emp. Sedan	1595 1795 1245 1285 1285 1285 1385 1795 1795	4 3000 4 3055 2 2350 4 2500 4 2570 2 2378 4 2578 2 3000 4 3050 2 3150	Dhmnr Dghmnort Odhr Odhr	FALCON- KNIGHT  4p. Roadster Touring 4p. G.G. Rdster 2p Coape 5p. Brougham 5p. Sedan 5p. Laudau.	995 995 1095	2500	ghr beghkmnrwx ghr ghr ghof ghrtu
BUICK "115" 4p. DeL. Rdstr. \$1195   2 2990   ahmnpr 5p. Touring DeL.   1225   4 3040   ahmnpr 5p. 2d. Sedan   1195   2 3110   ahmnr 5p. 4d. Sedan   1195   2 3215   ahmnrt 5p. Ctry. Club.   1275   4 3300   ahmnrt 5p. Town Bro'm.   1375   4 3305   ah "120"  4p. Coupe.   1465   2 3800   ahmnr 5p. 4d. Sedan   1495   4 3870   ahmnr	CHEVROLET "AA" 2p. Roadster 5p. Touring 2p. Util Ope	525 4	2 1890 d 4 1965 d 2 2090 d	dr	DIANA "St. 8" 5p. Phaeton 5p. Roy. Roadster 5p. P.B. Rdstr 5p. Cab. Rdstr.	\$1595 1695	4 310 2 299 2 299	0 agmn 5 agmnw 5 Bgmnw 0 aghmn	FLINT "66"  5p. Touring	. 1395 . 1395 . 1395 . 1450 . 1595 . 1795	2 288 289 4 303 2 301 4 324 4 339 2 350	aehmnrx Aehmnrw aehmnort aehmnort aehmnor aehmnor aehimnrwx aehimnrwx aehimnrwx
5p. 4d. Sedan	5p. Coach	595 2 695 4 715 2 745 4	2 2190 d 2 2190 d 4 2275 d 2 2135 d 4 2270 d 4 2260 d	dhr dhr dhr dhru dhu	5p. Cab. Rustr 5p. Cab Rdstr 5p. 4d. Sedan 5p. 2d. Sedan 135" W.B. 7p. Touring	2295 1995 1695	2 316 4 327 2 317	0 agnmn 0 aghmn 5 aghmnot 0 aghimno 6 agmn	5p. Sedan	. 1595 2050	4 347 4 378	o afhmnrx o aehmnortx o aehknor

A—Wood wheels with spare.

a—Wood wheels.

B—Wire wheels with spare.

b—Wire wheels.

C—Optional wheels with spare.

c—Type of wheels optional.

D—Disk wheels with spare,
d—Disk wheels,
e—Front and rear bumpersf—Front bumper,
g—Shock absorbers or snubbers,
h—Automatic windshield wiper.

KEY TO SYMBOLS:

i—Trunk and trunk rack.
j—Trunk rack, no trunk.
k—Spare tire.
l—Spare tire lock.
m—Engine heat indicator.
n—Dash gasoline gage.

<sup>•—</sup>Car heater.

p—Cigar lighter.

r—Rear traffic signal.

s—Spotlight.

t—Vanity and smoking set.

—Smoking set.

<sup>V—Vanity set.
W—Windshield wings.
X—Clock.
\*—Overall length.
§—Prices on application.</sup> 

PA

PEERI 2-4p. I 2-4p. C 5p. Sec "6-5p. Co 5p. Sec 5p. Sec 133 7p. Ph: 2-4p. H 7p. Sed

### Prices, Weights and Equipment of Current Passenger Car Models

Passenger and Model	F.O.B. Price	Shipping Weight	Standard Equipment	Passenger and Model	F.O.B. Price	Doors Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors Shipping Weight	Standard Equipmen
FORD "T"  2p. Runabout  5p. Touring  5p. Touring  5p. Touring Sedan  5p. Tudor Sedan  5p. Fordor Sedan	\$360 380 485 495 545	2 1658 4 1732 2 1820 2 1950 4 2002	a a	"J_1"  4p. Playboy 2-4p. Sp. Coupe 5p. Cus. Sedan 4p. Cus. Vict "AA" 2-4p. Playboy 2-4p. Sp Coupe 4p. Cus. Vict 5p. Cus. Sedan	1545 1695 1695 1695 1695 2345 2495 2495 2495	2 3070 4 3200 2 3200 2 3200 2 3340 2 3470	aghmnrx aghmnrtx aghmnrtx aghilmnrtx aghmnrx aghmnrx aghmnrx aghmnrtx	4p. Spt. Touring. 4p. Collap. Coupe. 5p. Sedan 7p. Sedan	\$3500 2850 3000 2850 2900 3350	1	aezhkimnprt uvx aeghkimnprt uvx aeghkimnprt uvx aeghkimnprt uvx aeghkimnprt tuvx aeghkimnprt	"E-75"  2p. Speedster.  4p. Speedster.  5p. Phaeton  7p. Tour. Speed  2p. Coupe Rdstr.  5p. Town Coupe.  4p. Victoria  5p. Brougham  5p. Sedan  7p. Sedan  5p. Cus. Sedan	3485 3485 3485 3565 3565 3195 3485 3485 3565 3565 3565 35640 3960	2 4251 2 4256 4 4017 4 4480 2 4374 2 4452 2 4373 2 4346 4 4525 4 4620	aeghlnprx aeghlnprx aeghlnprx aeghlnprx aeghlnprx aeghlnprtx aeghlnprtx aeghlnprtx aeghlnprtx aeghlnprtx aeghlnprtx
"11-B" 3p. Spt. Rdster 5p. Touring 3p. Coupe 3-5p. Coupe 4p. Victoria 5p. Sedan 5p. Ox. Sedan 5-7p. Sedan 5p. Spt. Sedan 7p. Limousine	\$2690 2635 2490 2565 2749 2790 2815 2840 2910 2940	4   2975 2   3105 2   3150 2   3165 4   3230 4   3240 4   3305	aeghkirx aeghkiprx aeghkiprx aeghkiprx aeghkiprx aeghkiprx aeghkiprx aeghkiprx aeghkiprx aeghkiprx	KISSEL "6-55" 124" W.B 5p. Phaeton. 4p. Speedster. 4p. Coupe Rd. 5p. Brougham. 5p. Spee. Bro'm. 5p. Bro'm Sedan. 5p. Conv. Bro'm. 131" W.B. 7p. Touring. 4p. Tourister. 5p. Br'm Sedan.	\$1685 1895 1895 1695 1795 1895 2295 1785 1895 2095	2 3160 2 3483 2 3300 2 3486 4 3440 	ahmnr ahmnr ah ah ah	7p. Sub. Sedan  "48"  4p. Sportif	3500 \$55 \$55 \$55 \$5900 5900	4 5330 4 5640 4 5464 4 5600 4 5868 4 5624 4 4475	aeghklmnprt uvx afghjklrsx afghklrstx afghklrstx afghklrstx afghklrstx afghklrstx afghklrstx aeghiklmnpr tuvx	7p. Cus. Sedan	\$995 995 1095 1195 1295 1195	2 2295 4 2340 2 2330 2 2575 2 2575	aeghlaprtx aeghlaprtx an an dn anw an
GARDNER "80" 4p. Roadster	1795 1995 2295	2   3375 2   3376 4   3370 4   3370 2   3375 2   3400 2   3475	aeghmnr amn amn aeghmnr aeghimnr aeghimnr deghmnr	7p. Sedan. "8-65" 125" W.B. 5p. Phaeton. 4p Speedster. 4p. Cp. Rdstr. 5p. Brougham 5p. Spec. Bro'm 5p. Conv. Bro'm 132" W.B. 7p. Touring. 4p. Tourster 5p. Bro'm Sedan.	1885 2095 2095 1895 1995 2095 2495 1985 2095 2295	4 3240 2 3155 2 3343 2 3330 2 3345 4 3400 3518 4 3360 4 3155 4 3455	ahmnr ahmnr ahmnr ahmnr ahmnr ahmnr ahmnr ahmnr ahmnr	7p. Touring	7300 7500 7450 7500 7500 7500 7750	4 4842 4 4930 4 4615 4 4615	aeghklmnpr tuvx aeghklmnpr tuvx afghimprtx afghmprtx aeghklmnpr tuvx afghmprtx afghmprtx aeghklmnpr tuvx	5p. Coach. 5p. 2d. Sedan. 5p. Roy. Sedan. 5p. Roy. Sedan. 5p. Roy. Sedan. 5p. Cust. Sedan. 5p. Touring. 5p. Rov. Rdster Collap. Cab. 5p. Sedan DeL. 5p. Sedan DeL. Spec Sedan.	1045 1145 1195 1245 1295 1395 1195 1595 1795 1395 1545 1545	2 2710 4 2860	dn ahin dn ahn ah dn dn dn
pp. Brougham pp. Sedan pp. Victoria  HUDSON "Super Six" "Std. Line" pp. Coach pp. Sedan "Custom" pp. Phaeton pp. Brougham pp. Sedan "S""	\$1285 1385 1600 1575 1850	4 3730 4 3690 2 3505 4 3620 4 3565 4 3660	deghimnrt deghimnrt deghimnr aghimnr aghimnr aghimnru aghimnru	7p. Sedan	2395 2395 2195 2295 2395 2795 2285 2395	4 3220 2 3360 2 3578 2 3565 2 3671 4 3760 3863 4 3630 4 3335 4 3755 4 3910 4 4080	ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar ahmar	MCFARLAN "Str. 8" 131" W B 4p. Roadster 5p Touring, 4p Sp. Phaeton. 4p Coupe 5p. Sedan 5p. Coach Bro'm. 5p. Town Car 136" WB. 7p Sedan 7p. Sub. Sedan	\$3050 3180 3180 3180 3180 3180 4600	4 3400 2 3650 4 3650 4 3650 4 3750 4 3700	Ceghmnprwx afghmrx afghimnprx afghimnprtx afghimnprtx afghimnprtx afghimnprtx afghimnprtx afghimnprtx	NASH "Std. 6" 5p. Touring. 2p. Coupe. 5p. Sedan. 5p. Sedan. 5p Land. Sedan. 5p Land. Sedar. 4p. Roadster 5p. Touring. 4p. Cabriolet 2p. Bus. Coupe. 5p. Sedan. 5p. Sedan. 5p. Sedan. 5p. Sedan.	\$865 875 895 995 1085 1225 1135 1290 1165 1215 1335	2 2345 2 2450 4 2500 4 2610 2 2980 4 2980 4 3070 2 3030 2 3150	5 Dahnr 5 Dahnr 1 Dahnr 1 Dahnr 1 Dahnr 1 Dhnr 1 Dhnr 1 Dhnr 1 Dhnr 1 Dhnr 1 Dhnr 1 Dhnr
F. Coach		4 262( 2 266) 2 280( 4 280)	aghimnr aghimnr O eghnr aghar O eghnr O eghnr O eghinr O eghin	LA SALLE 2-4p. Roadster 4p. Phaeton 2-4p. Coupe 2-4p. Coupe 2-4p. Cotoria 5p. Town Sedan. 5p. Sedan	2585 2635 2635 2650	2 3834	aeghlmnprx aeghlmnprx aeghlmnprx aeghlmnprx aeghlmnprx aeghlmnprtx	2p. Roadster 4p. Spt. Tour 4. Tour. Sedan 7p. Touring 6p. Sedan 7p. Sub. Sedan 7p. Town Car		4 460 4 520 4 520 4	Aeghilmnorx Oceghilmnorx Oceghilmnop rtx Afghilmnop rtx Afghilmnop rtx Ceghilmnop rtx Ceghilmnop rtx Cfghilmnop rtx Cfghilmnop rtx	121" W.B. 4p. Roadster 5p. Touring 5p. Sedan 127" W.B. 7p. Touring 5p. Sp. Touring. 5p. Sp. Touring. 5p. Victoria 4p. Coupe 5p. Amb. Sedan. 7p. Sedan	1475 1340 1425 1545 1440 1540 1595 1775 1925	4 3400 2 3620 4 3650 4 3500 4 3500 2 3640 2 3650 4 3820	Dghmar Dghmar Dghmar Dghmaru Dghmaru Dghmar Dghmar Dghmaru Dghmaru Dghmar Dghmaru Dgharuv
"E-3" 7p. Touring 7p. Touring 2-4p. Roadster 5p. Brougham 2-4p. Coupe 5p. Sedan 7p. Sedan 7p. Sedan Lim	. 2345 . 2345 . 2345 . 2495	4 336 2 335 2 351 2 346 4 354 2 352 4 336	5 dghrx 5 aghrx 5 aeghnrx	LINCOLN "8" 2p. Spt. Rdster. 7p. Spt. Touring. 4p. Phaeton. 4p. Coupe. 4p. Sedan. 5p Sedan. 7p. Limousine.	. 4600 . 4600 . 4600 . 4800 . 4800	4 4920 4 4960 2 4910 4 4920 4 5030 4 5050	aegklnprx aegklnprx begjklnprwx aegklnprx aegklnprx aegklnprtx aegklnmprtx aegklnmprtx	MARMON "Little" 2p. Speedster 4p. Speedster	. 1965	2 301 4 297	9 aeghlmnprx 7 aeghlmnprx	OAKLAND "6" 5p. Sp. Phaeton. 4p. Sp. Rdster Cabriolet 5p. 2d. Sedan 3p. Land. Coupe. 5p. 4d. Sedan 5p. Land. Sedan.	. 1075 1145 1045 1045 1145 1145	2 259 2 274 2 270 4 285	0 aehjw 0 aehjnw 5 ahu 5 ah 5 ahu 5 aehnou
JORDAN "R" 4p. Blue Boy 4p. Spt. Salon 2-4p. Tomboy 5p. Sedan	. 1595	2 277 2 265	0 Beeghkmnrx 5 aghjmnrx 0 aghmnrx 5 aghmnrta	LOCOMOBILE "8-70" 5p. Brougham 5p. Sedan 4p. Collap. C'pe.	. \$1895 . 1895	4 333	0 afghkmnex 5 afghkmnex . afghkmnex	4p. Sedan. 2p. Coupe. 4p. Brougham. 4p. Sedan. 2p. Coupe Rdstr. 4p. Victoria. 5p. Cus. Sedan. 5p. Cus. Sedan. 4p. Town Cab.	. 1795 . 1895 . 1895 . 1895 . 1995 . 2595	2 305 309 4 309 2 305 2 311 4 311 4 317	7 aeghlmnprx 9 aeghlmnpr 0 2 2 aeghlmnprtx 4 aeghlmnprtx 6 aeghlmnprtx 9 aeghlmnprtx 2 aeghlmnprtx 0 aeghlmnprtx	OLDSMOBILE "30-E" 5p. Sp. Touring. 4p. DeL. Rdster. 2p. Coupe. 5p. Sedan 2d 5p. Sedan 4d 4p. Sp. Coupe. 5p. Landau	. 875 . 875 . 975 . 965	2	ceghimnr cehmnr e e ceghmnru

A—Wood wheels with spare.
a—Wood wheels.
B—Wire wheels with spare.
b—Wire wheels.
C—Optional wheels with spare.
c—Type of wheels optional.

D—Disk wheels with spare.

d—Disk wheels.

e—Front and rear bumpers.

f—Front bumper.

g—Shock absorbers or snubbers.

h—Automatic windshield wiper.

KEY TO SYMBOLS

Trunk and trunk rack j—Trunk and ken trunk rack, no trunk.

k—Spare tire.

L—Spare tire lock.

m—Engine heat indicator.

n—Dash gasoline gage.

Car heater.
Cigar lighter.
Rear traffic signal.
Spotlight.
Vanity and smoking set.
Smoking set.

v—Vanity set.
w—Windshield wings.
x—Clock.
•—Overall length.
§—Prices on application.

### Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Shipping Weight	Standard Equipment	Passenger and Model	F.O.B. Price	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B.	Shipping Weight	Standard Equipmen
VERLAND "4" Whippet p. Touringtp. Roadster. p. Coupe. p. Coach. p. Sedan. p. Landau -fe Whippet -tp. Roadster. p. Touring. p. Touring. p. Touring. p. Coach. p. Sedan. p. Landau	\$625 695 625 625 725 755 825 765 795 875 925	2 2 4 4 2 2 4 2 2 4	1985 1930 2025 2075 2185 2230 2225 2270 2305 2440 2490	agh ag agh agh agh agh agh agh agh	7p. Limousine. 5p. DeL. Sedan. 7p. DeL. Sedan. "6-80" 5p. Phaeton. 2-4p. Roadster. 2-4p. Coupe. 5p. 2d. Sedan. 5p. Std. Sedan. Spt. Sedan. 5p. DeL. Sedan. "6-90" 5p. Phaeton 2-4p. Roadster. 4p. Coupe. 4p. Sedan. 5p. Sedan.	2695 2795 2995 1395 1495 1565 1395 1795 1795 1795 1695 1695 1725 1895 1895	4 3600 4 3700 4 2850 2 3025 2 2975 2 3000 4 3125 4 3100 4 3125 4 2930 2 2960 2 3050 4 3200	aghimnrtvx aeghimnrtvx aeghimnrtvx aeghimnrw aeghimnrw aeghimnrw aeghimnrw aeghimnrw aeghimnrw aeghimnrw aeghimnra aeghimnra aeghimnra aeghimnra	ROAMER  "8-78" 2p. Roadster 4p. Coupe. 5p. Sedan. "8-80" 2p. Coupe. 5p. Brougham 5p. Sedan. "8-88" 5p. Tourer. 5p. Sedan. 7p. Sedan.	\$1495 1495 1795 \$1985 1985 1985 2495 2985 3285	2 3410 2 3440 4 3570 4 3650 4 3880 4 3980	ag ag o cg	2p. Coupe. 4p. Coupe. Victoria 5p. Sedan, mohair. 5p. Sedan, plush. "Commander" 4p. Roadster. 2p. Coupe. 4p. Victoria 5p. Sedan. 4p. Vie. Regal. 4p. Vie. Regal. Sed. Regal. "President" 7p. Tourer 7p. Tourer 7p. Limousine.	1195 1295 1295 1195 1295 1495 1495 1495 1625 1625 1625 1795 1985 2250	. 3165 3165 4 3235 4 3235 2 3395 2 3510 4 3570 2 3465 2 3510 4 3805 4 4050	deghmnr deghmnr
PACKARD "526" p. Runabout p. Phaeton "533" p. Phaeton	\$2275 2275 2285 2385	4	3590	Deghlmnpx Deghlmnpx Deghlmnprtx	"8-69" 126" W.B. 5p. Coupe 5p. Sedan. 133½" W.B. 2-4p. Roadster 7p. Sedan. 7p. Sedan. 5p. Ber. Lim.	2795 2995 2995 3095 3495 3595 3795	3810 4 3875 2 3650 3975 4 3950 4 4050	Deghilmnrtx Deghlmnrtx Deghlmnrtx Deghlmnrtx Deghlmnrtx Deghlmnrtx Deghlmnrtx	ROLLS ROYCE "Si. Ghost" Open Models Closed Models "New Phan" Open Models Closed Models	10×10×10×10×10×10×10×10×10×10×10×10×10×1		Bfghjkmprtx Bfghjkmprtx Beghjkmprtx Beghlkmprtx	STUTZ "AA" 131" W.B. 2-4p. Sp'dster. 4p. Speedster.	\$3350 3360	2 4058 4 4175	aeghlmnpr aeghlmnpr
fp. Runabout  7p. Touring  1p. Coupe  5p. Club. Sedan  7p. Sedan  7p. Sedan Lim  "443"	2385 2485 2685 2685 2685 2785	4 4	3925 4015 4070	Deghlmnprx deghint Deghilmnpr tx Deghlmnprtx Deghlmnprtx	PIERCE ARROW "80" 2p. Runabout	\$2495		afgblrx	STAR "4"  2p. Con. Rdstr 5p. Touring 2p. Coupe 5p. Coach 5p. Sedan	550 650 675 765	2 1850 4 1920 2 1963 2 2120 4 2200	Da 5 ah 0 ah 0 ah	2-4p Coupe. 4p. Vict. Coupe 5p. Brougham. 5p. Sedan 5p. Land. Sedan 145" W.B. 7p. Sedan 7p. Sedan Lim	3365 3375 3395 3395 3545 3885 3985	4 4340	aeghlmnpr aeghlmnpr aeghlmnpr aeghlmnpr aeghlmnpr aeghlmnpr aeghlmnpr
p. Runabout p. Phaeton p. Touring p. Coupe p. Club Sedan p. Sedan	3975 3975 4050 4950 4950 5150	4	4550	Deghklmnprx Deghilmnp rtx Deghklmnp	7p. Phaeton	2895 3095 3350 2495 3025 3100 2895 3350	4 3300 2 2 3470 4 2 3405 4 3525	afghlrx afghlrx afghlrtx afghlpr afghlrtx afghlrtx	5p. Tourong	725 885 915 795 845 925 975	2 226 2 214 2 226 4 234 4 233	0 a 0 aeghkmrw 0 aeghmr 5 ahmr 5 ahmr 0 ahmr 5 ahmrt 5 aeghkmr	"AA DeLuxe" 131" W.B. 2p. Speedster 4p. Speedster "AA Custom" 131" W.B. 4p. Speedster 5p. Pr. Wales Sed	3450 3460 4935	2 4058 4 4175	aeghlmnpr aeghlmnpr aeghlmnpr
p. Sedan Llm	5250	4	4700	rtx Deghklmnp rtx	7p. Coupe. 5p. Club Sedan. 5p. Club. Land 7p. Ene. Dr. Lim. 4p. Coupe 5p. DeL. Sedan 7p. DeL. Sedan 7p. Lim. Enel	3200 3300 3400 3450 3250 3895 3995 4045	2 3450 4 3565 4 3570 4 3680 2 3420 4 3500 4 3600	afghlrtx afghlr afghlr afghlrtx afghlrtx afghlrtx afghlrtx afghlrtx	STEARNS- KNIGHT "F-6-85" 4p. Roadster	975 \$3250		2 aeghklmnpr	5p. Wey. Deau. S 5p. Wey. Sedan 145" W.B. 7p. Speedster 7p. Pr. Wales Sed 5p. Wey. Sedan 7p. Cab. T'n Car 2-4p. Cab. Coupe	4665 4665 3885	4	aeghlmnp aeghlmnp aeghlmnp aeghlmnp aeghlmnp aeghlmnp aeghlmnp
7AIGE 6-45 5p. Touring	\$1095 1095 1195 1095 1195	2 2 4	2525 2615 2660 2760	aeghnr 5 aeghnr 6 aeghnr 9 aghnr 9 aghnru • aghmnrwz	2p. Runabout. 4p. Touring. 7p. Touring. 7p. Sedan. 7p. Lim. Encl. 3p. Coupe. 4p. Cpe. Sedan.	5875 5875 5875 5875 5875 6375 6375	4 4510 4 4585 4 4815 4 4870 2 4760	afghlrx lafghlrx lafghlrx iafghlrtx lafghlrtx lafghlrtx lafghlrtx	4p. Touring 4p. Cab. Rdstr 5p. Cus. Sedan 4p. Coupe	3250 3550 3350 3450	2 4 456	2 aeghjklmnpr wx aeghklmnor 2 aeghjklmno rtx 7 aeghklmno				
pp. Brougham pp. Land. Bro'm pp. Sedan "6-75" pp. Touring pp. Cab Rdster pp. Sedan	1395 1395 1495 1655	4 2	2 3218 2 3118 3 3280 4 3420 2 3540	aghmnr aghmnr aghmnrux aghmnrx deghmnrx	4p. Sedan. 7p. Enc. Dr. Lan. 7p. Sedan Land. 4p. Lim. Encl. 4p. Sedan. 2p. Coupe 4p. Sedan Land.	6375 6000 6000 6375 6475 6600 6600	4 4830 4 4895 4 4840 4 4880 4 4805 2 4745	) afghirtx 5 afghirtx 0 afghirtx 0 afghirtx 5 afghir 5 afghir 0 afghirtx	5p. Std. Sedan 5p. Sedan Lim 5p. Cus. Sed. Lim	. 3450 . 3700	4 457 4 465	rtx 2 aeghjklmno rtx 0 aeghjklmno rtx 7 aeghjklmno rtx 7 aeghjklmno	VEL1E  "Std. 50"  2-4p. Roadster 3p. Coupe 5p. Sedan 5p. Met. Sedan "Spec. 60"		4 281	aehkmr Daehkmr eghk
p. Coupe		4 4	3550 3765 3805 3570 3570	deghmnrx ddghmnrtx ddghmnrtx aeghmnprx aeghmnprux aeghmnprux	4p. Encl Land 7p. Fr. Limou 7p. Fr. Landau	6600 7500	4 4880	) afghirtx ) afghirtx 5 afghirtx	7p. Sedan Lim 7p. Sedan Lim "G8-85" 4p. Roadster	. 3750 . 3950 . 3950	4 480	22 aeghklmno rtx 30 aeghklmno rtx 48 aeghklmnpr	5p. Club Ph'tn 4p. Coupe 5p. Spec. Sedan 5p. Royal Sedan.	. 1585 . 1585	2 326 4 333	5 aehimnpr 0 aehmnru 5 aehmnru 0 aehmnru
p. Cabriolet p. Sedan p. Limousine	2495 2525 2665	4	2 3690 4 3910	) aeghmnprx ) aeghmnprux ) aeghmnprux	PONTIAC "6" 2-4p. Roadster 2p. Coupe 5p. 2d. Sedan 4p. Sport Cab 5p. Land. Sedan.	\$745 745 745 795 845	2 2273 2 2373 2 234 4 246	5 a 0 ah	4p. Cabriolet 4p. Coupe 5p. Sedan		2 471 2 488 4 493	wx aeghjklmnp rwx aeghklmnopr x aeghklmnor tx aeghklmno rtx aeghklmno rtx aeghklmno	WILLYS- KNIGHT "66-A" 2p. Roadster	\$1850	2 364	5 aghnrx
"6-60" 2-4p. Roadster 2-4p. C'pe Rdstr. 5p. Sedan "6-72"	\$1298 1348 1348	5 4	1 272	0 adeghlmnr 5 adeghlmnr 5 adeghlmnr	FEO "A"  2p. Roadster	. \$1688	5 2 330	0 aeghnr	7p. Sedan Lim  5p. Sedan Lim  7p. Limousine	. 4850	4 500	rtx 09 aeghklmno rtx 02 aeghklmno rtx 12 aeghklmno rtx	5p. Touring. 2-4p. Cab C'pe. 4p. Foursome. 5p. Sedan. 135" W.B. 7p. Touring. 7p. Sedan. 7p. Limousine.	. 2095 1995 2495	4 397	4 aghnrx 0 aghnrx 5 aghnrtx 5 aghnrtx 25 aghnrtx
126½" W.B. 5p. Coupe 5p. Sedan 133½" W.B. 7p. Phaeton 2-4p. Roadster 7p. Sedan	. 1995	5 4	4 347 4 317 2 330	0 aeghilmnrtx 5 aeghlmnrtvx 5 aeghlmnrx 6 aeghlmnrtwx 5 aeghlmnrtvx	2p. Sy. Coupe. 4p. Victoria. Sedan. DeL Sedan. "Wolverine" 5p. Brougham.	1688 1628 1848 1848 1998	5 2 332 5 2 335 5 4 355 6 4 355	5 aeghinr 0 aeghnr 0 aeghnr 0 aeghnr 0 aeghnrt 0 aehinr	STUDEBAKER "The Dictator" 5p. Tourer 5p. Du Phaeton. 7p. Tourer 4p. Roadster	119	4 30	90 defghmnr	"70-A" 2-4p. Roadster 5p. Touring 2p. Coupe 5p. Coach 2-4p. Cab Coupe 5p. Sedan	. 1350 . 1295 . 1295 . 1295 . 1495	4 290 2 281 2 301 2 288	aghnr 5 aghnr 5 aghnr 60 aghnr 80 aghnr 50 aghnr

A—Wood wheels with spare.

a—Wood wheels.

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wire wheels.

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C—Type of wheels optional.

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f—Front bumper.

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KEY TO SYMBOLS:

i—Trunk and trunk rack
j—Trunk rack, no trunk.
k—Spare tire.
l—Spare tire lock.
m—Engine heat indicator.
n—Dash gasoline gage.

Car heater.
 Cigar lighter.
 Rear traffic signal.
 Soblight.
 Smithy and smoking set.
 Smoking set.

<sup>V-Vanity set.
W-Windshield wings.
T-Clock.
Overall length.
Prices on application.</sup> 

B.—Semi-steel
B.—Both internal and
external, four wheels
B.O.—Boved Gear Overhead shaft
C.—Chain
C.—Chain
C.—Chain
C.—Chain
C.—Chain
C.—Oul and gresse cups

## rs distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory Mechanical Specifications of Current Passenger Car Models

	ABBREVIATIONS—	OF STOCK PARTS	A.Bos—American Bosch Ada—Adams A.K.—Atwater Kent	A-L-Auto-Live AII—Alemite AIII—Almetal B&B—Borg & Beek B-L-Brown-Lipe	Bal—Ball & Ball Ba—Bassic cupe Car—Carter CAS—CAS Producte	Cle—Cleveland Col—Columbia Con—Continental Cpi—Campbell	Da—Dawson Do Jo—DeJon Det—Detroit De—Dot	D-K—Delco-remy Dur—Durston Dyn—Dyneto Eat—Eaton	Gem—Gemmer G & H—Gusy & Haigh Hol—Holley Jac—Jaçox			Sal—Salisbury Sch—Schebler Sne—Snead	Spi—Spicer Spi—Stewart Ste—Stromberg	Til—Tillotson Tim—Timken U.M—Universal Machine		Wis-Willys-Morrow Wis-Wisconstn Ze-Zerk Zentth	1 00		
_ue	icati	Reat Springs Length Chassis Lubi Type and Ma	TAL.	r-Al.	S-591/ Bowen B S-591/ Bowen B S-591/ Bowen S	Pr-Ze Ow	S-53 Pr-Ze. S-57% Pr-Ze. J-62 Pr-Al	S-52 Pr-Al S-51 ½ Pr-Al S-50% Pr-Al	Pr-Ze. Pr-Ze. Pr-A-Z	S-51 Oc S-56 Oc S-58 Bowen	S-54% Ow S-51% Pr-Al. S-51 % Pr-Ze. S-51 % Pr-Ze.	S-55. Pr-Ze. 0-431/2 OG. E-38. Pr-Ze.	S-54. Pr-Ba. S-57. Pr-Al. S-57.14 Ow	S-54 Pr-Al S-56½ Pr-Al S-55¼ Pr-Al	S-55% S-55% S-60	S-60. Pr-Al. S-60. Pr-Da. S-58. Pr-Al.	-T head -Thermo-syph	'X'' shape V—Cantilever Var—Varios I—Store valve  T—Yes	
			1 .	:::			: : : .	Ross Ross	: : :	Ross Ross	Own.	Ross. Own.	Ross. Ross. Gem.	Ross Gem		Ross Jac	15	- PANE	
BRAKES	-	Geer Ratio Foot—Type ar Location Hand—Type and Location 4-Wheel Type (*=Extra) Steeting Gea	B-F. E-T	45 B-F. E-T. M. J. 72 E-F. I-R. M. J. 99 E-F. I-R. M. J. 99 E-F. I-R. M. J. 99 E-F. I-R. M. J. 90 E-F. 90 E-F. I-R. M. J. 90 E-F. 9	8-F. E-T. M F. E-T. M F. E-T. M	. 18 E-F. E-T H	4.70 E-R E-T H G 4.6° E-F. E-T H G 4.23 E-F. E-T M R	. 90 E-F. E-T H 5.37 E-F. E-T H 1.9 E-F E-T H	10 E-F E-T H 3 76 E-R E-T N 4 75 I-F I-R H 4 7 E-F E-T H	4.9 E-F E-T H 4.9 E-F E-T H 4.82 E-F E-T H	5 12 I-F. I-F. M 5 40 E-R I-R. N 5 11 I-F. I-R. Se 4 87 E-R E-T. N	4.09 4.77 1.F. E-T H 3.63 5.71 1.F. N	4.89 I.F. E-T M 4.2° I.F. E-T M 4.5 I.F. I.R. M	4.90 B-F. E-R 4.9° E-F. E-T	4.4° E-F. E-T.	im. 4.89 E-F. E-T. H wn. 4.89 E-F. E-T. H wn. 4.54 B-F. I-R. M Im. 4.58 I-F. E-R. M	Quarter elliptio	and S.—Semi-chiptio Se—Seyrave gen Sep—Seyrave Dir.—Splash (lubrication) After Sp—Splash (lubrication) Sp—Splash (lubrication) After Sp—Speara Sta—Standard	
REAR AXLE		ype and Mak	r Sol	Col Col Own	Own.	Оwв.	Own Own Tim	2000	Col	Sal:	Tim Ya Own	Who own	Col. :		222 ;	EXXXXE FOF	- 02	SONON NO	
	e ed	daM—192 189 YT—slastsvin odal	Nar. m-U-P	War m-U-P % War m-U-P % Own m-Own. F.	Own. m-Spi Fl Own. f-Own 34 Own. f-Own 34	Own. m-U-P.	Own m-U-P	W-G. m-Pet	War. Own.	W-G m-Cle	War m-Spi. Own m-Spi. Own m-	Own. m-Spl	W.G. m.Cle	Det. m-Mec.	War. Det War.	B&B. W-G. m-Spi B&B. W-G. m-Mec. B&B. W-G. m-Spi Own. Own. m-Spi	own com.	Pr.—Fressure guillouse to all crankshaft and promoteding robestings pr.—Pressure to enableship, con-pressure to crankshaft, con-pressure to crankshaft, con-pressure code and cambaft ps.—Splan with pressure pr.—Pump	
odal	N P	исh—Туре я	מו	P.Long D.Long D.Own	D.Own. P.B&B.	P.G&H	P.Roc. P.B&B.	P.B&B.	: C Di C :			101 01	: : :	: ::	THE STATE OF THE S	FUTUR	Single plate	PK-Full PK-Full PK-Pull PS-Spl	
ICAL		nerator and arter Make	_ 1	D-R.	D-R	D-R	D-R.	D-R D-R	N-E		D-R D-R A-L		Dyn.	: ::		R. D.R.			
ELECTRICAL	-	ition System	1	0000	D-R D-R	D-R.	DOR	D-R D-R	NNOON	Bose D-R D-R	A P-L		Y A-K.		XXXX AXA	Y D-R	X De	springs) ear springs as Oups	
-	L	Cleaner?		ZZZXX		× × ×	ZXX		*****	: ::	ZNZN	::::	:::	:::		Sch Sch Sch	:	(rear fron type (r	
		rmostat? istor (ters? buretor se	Rad Shu	XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	; MZZ		X N N Str. N Str. Bal.	z zz	ZZXZZ ZZXZZ	O ZZ	Pu. Y N Swan Th. N Y Ste.	zz z	ZZ Z	z zz	Pu Y N Str. Pu Y N Str. Pu Y Str. Pu Y Str.	ZZZZ	1 25	M—Mechanical N—Tone (rear springs) N—Patform (rear springs) N—Poticol from 0—Optional 1a O—Optional 1b O—Optional 0—Optional of cases Oups 0G—Oil sung reases Oups 0G—Oil sung with wide feed	
		motet & gni	C00	Pri.			NA P		NATA S		ANEZ>			az >	LYZZ	>44×>	HZ I	alves) akes) r wheels r wheels elliptic	
		Zleaner?	- 1	PKK PKK PKK PKK PKK PKK PKK PKK PKK PKK		PE. F	5. 1.	E M	PK.		PK. PK.	PK.	P.C.		PK.		PK	ntal (v ulic (br al gear ostatic nal for nal rea quarter	_
22000	ENGINE	Main Bear. kshaft Vib'n per? System	Cran	*****	4 64	N N N N	4KZ ×	N N	Arono NANX	ZZ Z	νν 4ωι >>ΣΣΣ	-4r	-101-101-	104	KKKK CI.	. wrore	NI 3 Al 6 N	H—Horizontal (valves) H—Hydraulic (brakes) He—Hydroulic (brakes) HS—Hydrostatio I—In head I-F—Internal four wheel I-F—Internal rear wheel I-F—Internal rear wheel I-F—Origone	L-L besed
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for Economical Transportation



# Value that defies / comparison.

Bodies by Fisher, beautifully beaded and paneled and finished in modish colors of genuine Duco . . . full-crown, one-piece fenders and bullet-type headlamps . . . a host of mechanical refinements, such as AC air cleaner, AC oil filter!

Never before was such quality incorporated in a low-priced automobile—a fact that has been given a most spectacular appreciation by the automobile-buying public.

That is the reason why Chevrolet dealers in every section of the country are enjoying unparalleled profits, with every assurance of an unlimited continuance of their volume!

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation

Mechanical Specifications of Current P.	assenger Car Models-Continued	STATE OF THE STATE
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M—Mechanical
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N—Pattorn (tear springs)
N—Nickel Iron
O—Special type (rear springs)
OG—Oil one of Grease Cupe
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P—Single plate He—Helical gear
He—Helical gear
I—In bead
I—E—Internation wheela
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I-R—Internation wheela
J—Three-quarter elliptic
I—Loseed

B-F-Both Internal and E-caternal, four wheels E-Bo-Bavel Gear Overhead shaft E-Ch-Chain: Overhead shaft F-Co-Chain: Overhead shaft G-G-Chain: Overhead shaft G-C-Chain: Overhe

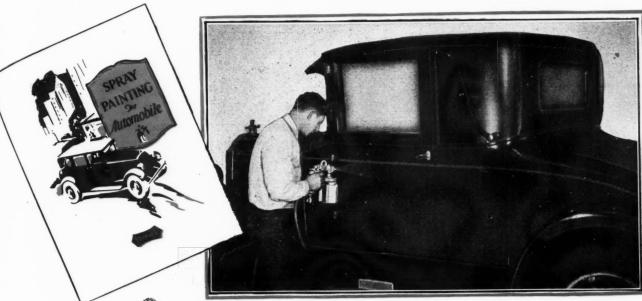
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### SPRAY PAINTING

### Try it on your Used Cars

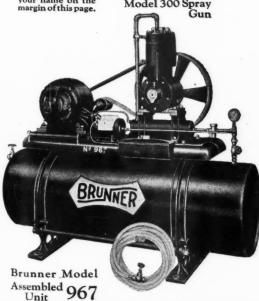


### Car Dealers Garagemen!

Send for your copy of "Spray Painting the Automobile." Contains complete painting information. Merely sign your name on the margin of this page.



Brunner Model 300 Spray



A SHABBY weather-worn car is a liability in any car dealer's stock. A repainted reconditioned car sells readily with very small sales cost charged against it.

Don't let your used cars tie up your working capital; they are a loss until repainted and sold at a profit.

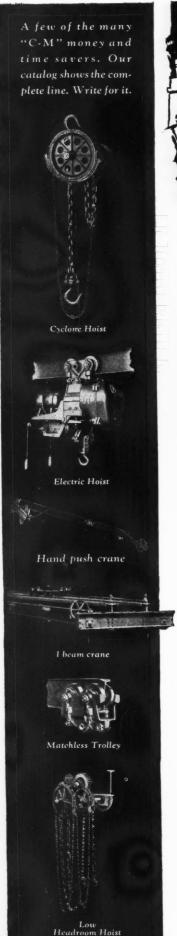
Brunner Paint equipment in your shop will insure dependable and satisfactory operation.

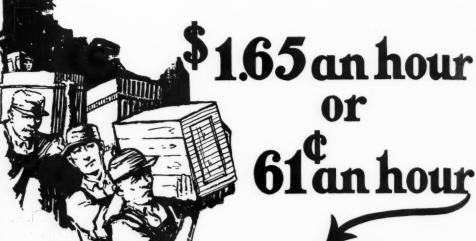
Learn more about the Brunner line. Your name on the margin will bring our representative to explain its construction and operation in detail. Send us your name NOW.

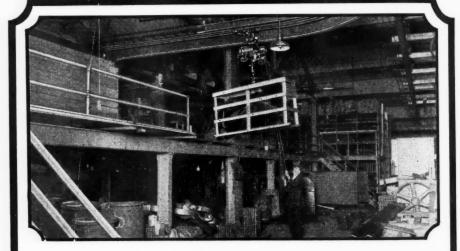
Brunner Manufacturing Co. Utica, N. Y.

Kansas City, Mo., San Francisco, Cal., Toronto, Canada

BRUNNER SPRAY PAINT EQUIPMENT







### How Much Does Your Material Handling Cost You Per Hour?

IF, in any part of your plant, you are using three men to do the work that one man and an electric hoist could do you are paying \$1.65 an hour [55c an hour for common labor] instead of 61c an hour [55c for the man and 6c for the hoist]—or \$2256 a year in unneccessary wages for that particular job.

A "C-M" idea and a "C-M" hoist made such savings in labor in the plant shown above. A "C-M" idea and "C-M" material handling equipment can make like savings in your plant. The advice of the "C-M" material handling engineer is free to you. Write for complete information.

THE CHISHOLM-MOORE MFG. Co. 5018 Lakeside Ave. ... Cleveland, Ohio



Our interesting little pamphlet, "\$1.65 an hour or 61c an hour" is free. Write for it.

CHISHOLM-MOORE

CHAIN HOISTS



FI FCTRIC HOISTS





with the NEW Sioux Roller Chucking System

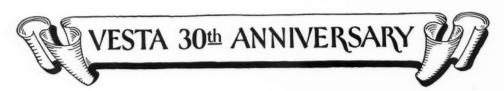
YOU can make valve servicing a source of big profits—with a Sioux Valve face Grinding Machine. Mechanics are amazed at its accuracy, speed and perfect work. It cuts down the time on each job—giving you a bigger margin. You can make extra money refacing valves for other shops.

The No. 640 refaces valves of 45° angle and 1-4" to 1-2" stem capacity. Guaranteed for a lifetime. The new Sioux Roller chucking System—an *exclusive* Sioux feature—is a marvel of simplicity, efficiency and convenience—guaranteed accurate within .001.

Your Jobber Sells It.

ALBERTSON & CO., SIOUX CITY, IOWA, U.S.A.





### Now-Look into THIS Battery



You who knows batteries so well—who know how they are built and what they must stand -will readily appreciate the construction of the Vesta Isolator Battery. You will appreciate what a battery with this great selling feature will do for you in increased sales.

### The VESTA Isolator Battery

The leader in a complete price-range line

The famous Vesta ISOLATOR principle which locks the plates apart-firmly in place -minimizing plate buckling and short circuiting.

ONLY Vesta has this isolator feature - patented-exclusive-of great value to the dealer and longer service to the owner.

Vesta national advertising in the Saturday Evening Post, Liberty, Country Gentleman, and Successful Farming is another big selling advantage for the dealer in Vesta Batteries and Radio Power Units.

Get in the front row now - with Vesta Batteries.

> VESTA BATTERY CORPORATION 2100 Indiana Ave., Chicago, U. S. A.

QUALITY BATTERIES for AUTO AND RADIO







VESTA RADIO "A" UNIT VERTREX RECTIFIER Socket Power—in both 6 and 4 volt, 50 amp. capacities. Built in clear glass. With or without automatic relay. List at \$28 to \$37.50.



VESTA RADIO "A" UNIT BALKITE RECTIFIER Socket Power in both 6 and 4 volt, 50 amp. capacities. Built in clear glass. With or without automatic relay. List at \$28 to \$37.50.



COMPLETE "A-B" UNIT Socket Power (dry rectifier) automatic relay. 40 mils, 180 volts, \$72; 60 mils, 180 volts, \$77.



NEW "B" UNIT Socket Power with automatic relay,40mils, 180 volts, \$39.50; 60 mils, 180 volts \$44.50.



VESTA DRY TRICKLE CHARGER Socket Power, without relay\$15; with relay\$17.50 (Licensed U. S. Patent Serial No. 1611653.)



Complete line of Vesta Non - Micro-phonic Tubes for every radio purpose; the height of quality.

M. A.—9-1-27

### ----WRITE NAME ON THIS COUPON--

Vesta Battery Corporation, 2100 Indiana Ave., Chicago, U. S. A. Please have the Vesta Central Distributor near me submit the Vesta Dealer Plan.





### ILLIONS TO BE SPENT ON OIL FILTERS

### The Importance of Filtering the Oil in Your Engine?

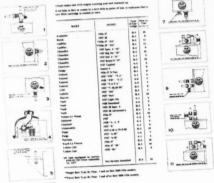
THE AC Oil Filter removes the dirt, sludge, metal particles and other foreign matter from the oil, thereby eliminating excessive engine wear and frequent oil changing, thus minimizing repair bills and oil expense.

Why It Is Important To Test Your Oil Filter When the oil filter becomes filled with dirt it has taken from the oil, it ceases to function.

Only by continuous libration can the oil be kept clean. When the filtering unit becomes
filled with the dirt, sludge, etc., taken from the oil, a new carriage should be installed.



HOW TO TEST Replacement Cartridge



Cadillac

Chandler

Chevrolet

Dodge

Nash

La Salle

Oakland

Peerless

Here's the unit you replace - and how it is

Oldsmobile Paige

There's an AC Oil Filter for Cars Not Factory Equipped-Ask Us

leaving the factories-all AC Oil Filter equipped. Just think what this renewal business These cars are AC Oil Filter-equipped means to dealers who are make Buick

ing it a practice to test the oil filter on their customers' cars.

There are now over a million

cars in use and over 10,000 a day

In addition to this, there is the business of complete oil filter installations for cars not equipped with an oil filter.

In the sale of AC Oil Filters and AC oil filter renewal cartridges, the big job is to get over to car owners the importance of filtering the engine oil-and the necessity of testing their oil filter at regular intervals and renewing the cartridge when needed.

There is a big business to be had by dealers who will put up one of these posters which convincingly brings out the importance of filtering the engine oil.

Dealers should put this poster up where their customers can see it, using it to explain to their trade the importance of clean oil, how the filter can be tested and the necessity of renewing the cartridge.

Actual size of poster is 25" x 40" -printed in two colors.

Poster furnished gratis on request -simply ask for form A-197.

AC Spark Plug Company, FLINT, Michigan

AC-SPHINX
Birmingham
ENGLAND

Makers of AC Spark Plugs—AC Speedometers
AC Air Cleaners—AC Oil Filters
AC Gasoline Strainers
AC-TITAN
Clichy (Seine)
FRANCE

Over 200 of the world's most successful manufacturers use one or more, or all of these AC Products AC SPARK PLUGS AC SPEEDOMETERS AC AIR CLEANERS AC OIL FILTERS

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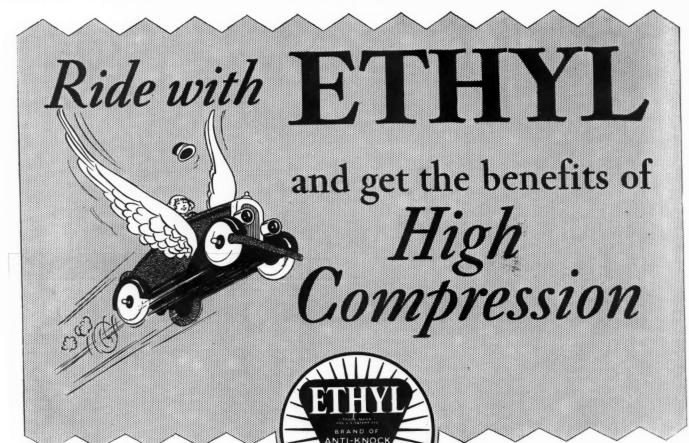
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The

Plug

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MORE than a million motorists are now enjoying the benefits of high compression through Ethyl Gasoline. In two ways:

1 Through high compression automobiles. The advent of Ethyl Gasoline has at last given car manufacturers the opportunity mechanically to raise the compression of their engines. For cars now in use they can offer special high compression cylinder heads which greatly increase performance.

2 Through carbon formation. By letting carbon form in the cylinders of a car of ordinary compression, you automatically increase compression. And since Ethyl Gasoline is a high compression fuel, those deposits which heretofore have meant "knocking" and power loss become a source of extra power and driving satisfaction.

Ethyl Gasoline is motor gasoline con-

taining Ethyl brand of antiknock compound, the ingredient which eliminates the

"knocking" characteristics of ordinary gasoline and makes it a high compression fuel.

In terms of you and your car, high compression and Ethyl Gasoline mean a more powerful and flexible car, less gear-shifting, faster pick-up, less vibration and lessened depreciation. In short, a performance and economy impossible with ordinary compression and ordinary gasoline.

Ethyl Gasoline is distributed in the United States and Canada by responsible oil companies. It has absolutely no ill effect on the motor or its parts.

The first tankful will prove every claim. On sale at pumps which bear the "ETHYL" trademark shown on this page. There's one near you.

ETHYL GASOLINE CORPORATION 25 Broadway, New York City

ETHYL GASOLINE



Not only is the Moto Meter self-adjusting Spark Plug proving its superiority in the field of passenger cars, trucks and busses, but the advent of these remarkable plugs into the racing field has been a complete success. In the Gold Cup Regatta, Jamaica and Newport classics, Moto Meter plugs made practically a clean sweep.

In the Gold Cup race, emblematic of speed boat supremacy, the Greenwich Folly and Miss Columbia placed first and second, the only entrees in this class equipped with Moto Meter Spark Plugs—and the only boats to finish in this exacting test of skill and performance. Similarly, in the Rainbow and Baby Biscayne classes as well as the Baby Gar Junior stock runabout races—Moto Meter plugs returned a winner in each class.

The experience and success of Moto Meter Spark Plugs in the practical proving ground of competition—where maximum efficiency and thorough reliability go hand in hand with performance—completely justifies the faith and confidence expressed in this latest Moto Meter contribution to modern engine development.

The Moto Meter Company, Inc., Long Island City, N. Y. The Moto Meter Co. of Canada, Ltd., Hamilton, Ontario

Winner of the GOLD CUP at Greenwich, Conn.

New York State.
CHAMPIONSHIP
Outboard Motors
Jamaica Bay

Let and 2nd places

All OUTBOARD

MOTOR RACES

Newport, R.I.

At Newport, R. I., August 20th, Kirk Ames in Cute Craft with an Evinrude motor equipped with Moto Meter self-adjusting Spark Plugs, made what is believed a new world's record for outboard motors—29.08 miles per hour.

MOTO METHER
U.S. PAT. OFFICE
SELF-ADJUSTING

A Better Spark Plug

## PIERCE-ARROW market doubled by recent price reductions

THERE are now at least twice as many people in your territory who can afford to buy a Pierce-Arrow as there were before the recent price reductions—up to \$500—on several popular Series 80 models. Your customers can now buy a beautiful five-passenger, enclosed Pierce-Arrow for as low as \$2495 (at factory, plus tax).

This greatly widened market makes the Pierce-Arrow franchise—always desirable and profitable—more valuable than ever before. The new prices, the lowest in Pierce-Arrow history, make these cars available at but little above the cost

of the average popular-priced car.

And the result is felt, not only in record-breaking sales of *Series 80* cars, but the magnificent *Series 36* at \$5875 (plus tax and transportation) for the Enclosed Drive Limousine, is sharing in this strong demand.

In cities, large or small, where Pierce-Arrow is not adequately represented, dealers and other substantial business men are invited to investigate the new franchise. With Pierce-Arrow selling as never before, this franchise is, without doubt, the most profitable in the entire field. Write or wire.

THE PIERCE-ÅRROW MOTOR CAR COMPANY, Buffalo, N. Y.

## PIERCE ARROW

Series 36 and Series 80

# If its JOHNS-MANVILLE beyond the brake pedal they know it's good Asbestos brake lining -can you tell your customers this?

## Lo your customers OHNS-MANVILLE

## "Asbestos Tupon close examination Headquarters"

Month after month 15 million people are seeing Johns-Manville advertising. These people know that Johns-Manville is headquarters for everything asbestos.

When you choose a brake lining choose one that means something to your customers. Johns-Manville has meant "Asbestos Headquarters" -for fifty-odd years.

Your choice of many distinctive selling helps - simply ask your distributor.

JOHNS-MANVILLE CORPORATION, MADISON AVENUE AT 41st STREET, NEW YORK. BRANCHES IN ALL LARGE CITIES. CANADIAN JOHNS-MANVILLE CO., LTD., TORONTO



Note the tightly woven edge. Its uniform thickness insures even contact and maximum braking



The unusually dense and heavy weave means exceptional durability and service.



Note the end. The special impregnation that resists oil and water penetrates all the way through.





Get this sign from your distributor. It ties your reputation to the

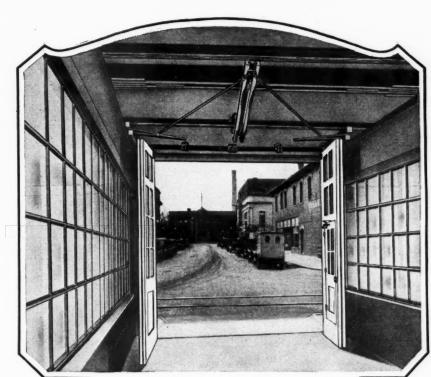


Illustration shows Aut-O-Dor as used with Richard-Wilcox 4-Door Slidetite Doors. Equally adaptable to double swinging doors.

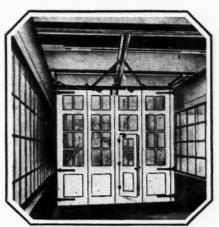
## Prepare for Winter with R.W. Aut-O-Dor ELECTRIC DOOR OPERATOR

You push a button, or pull a switch and the doors open and shut automatically. Push buttons can be located in several convenient parts of the garage.

The R-W Aut-O-Dor Electric Door Operator saves your time. It enables you to keep doors closed tight in cold weather without inconvenience—pays for itself in fuel saved. Besides—your patrons are never kept waiting. All these things mean money in your pocket.

Low first cost and practically no service or upkeep with the R-W Aut-O-Dor Electric Door Operator. It works by electricity, smoothly, gently, quietly and surely, without jolts or jars.

Write for further details



Doors in closed position—tight and storm proof. Note small wicket entrance door.

### Richards-Wilcox Mfg. Co.

New York · · · · AURORA, ILLINOIS, U.S.A. · · · · Chicago

Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit

Montreal · RICHARDS - WILCOX CANADIAN CO., LTD., LONDON, ONT. · Winnipeg

New 1928 models



PERR

AGAIN Peerless leads the way in real car value. Again Peerless offers dealers and distributors a selling proposition unapproached in the industry. Four new 1928 models ranging from \$1295 to \$3795—even finer, even better, than this year's cars that swept Peerless into unprecedented popularity ... that made Peerless double the greatest production records it had established in a quarter century of outstanding success.

### Three New Sixes

Each an engineering triumph, new in power, performance, pick-up—new in comfort—new in handling ease—new in value, even for Peerless.

Each has the freedom from vibration made possible only by a big 7-bearing crankshaft.

- -the silken smoothness that comes from Nelson Bohnalite Pistons,
- -the magical steering ease of a Ross Cam and Lever gear,
- -the positive safety given by Lockheed hydraulic four-wheel brakes,

- the riding ease produced by long, yielding springs,
- -the long life guaranteed by Timken bearings throughout.

And there are innumerable other advantages to anticipate every demand your customers make of a car.

Bodies are long—low—smart—rich in color—luxurious in deep pillowy comfort.

And prices are so low as to appeal to the shrewdest buying sense.

### -and the new 1928 90° V-type Eight-69

The most famous car Peerless has ever built—even finer—even more truly the leader among cars of highest quality. With that famous motor around which so much of Peerless reputation has been built.

### The Six-60

Wheelbase 116". Bore 3¼", stroke 4". SAE Rating25.35. The greatest car value Peerless has ever produced.

\$1295 to \$1345

### The Six-80

Wheelbase 116". Bore  $3\frac{1}{4}$ ", stroke  $4\frac{5}{8}$ ". From 5 to 25 miles in 7 seconds. Upwards of 70 miles per hour in high.

\$1395 to \$1595

### The Six-90

Wheelbase 120". Bore 3½", stroke 5". Thrilling, satisfying power that makes driving a joy.

\$1695 to \$1995

### The Eight-69

Wheelbase 133". The finest of fine cars. Unparalleled smoothness, coupled with power that's inexhaustible.

\$2795 to \$3795

These new models are ushering in the greatest period of prosperity Peerless dealers and distributors have ever known.

Now-today-write, wire or phone for details of the Peerless franchise.

PEERLESS MOTOR CAR CORPORATION · Cleveland, Ohio Manufacturers of the famous 90° V-type Eight-69, the Six-80, the Six-90 and the Six-60

PEERLESS . HAS . ALWAYS . BEEN . A . GOOD . CAR

IESS

## September 1, 1927

is equipped with Delco-Remy Lovejoy Hydraulic Shock Absorbers



Buick's selection of these hydraulic shock absorbers as standard equipment is a real tribute to Lovejoy's quality and unvarying performance.

Other standard installations on famous American cars will be announced soon, proving beyond the shadow of a doubt that the trend toward hydraulics continues!

Authorized Lovejoy Distributors are being appointed everywhere. Through these distributors, or through the Control Branches of United Motors, any car dealer can obtain equipment for any model of any car.

DELCO-REMY, KLAXON, HYATT, NEW DEPARTURE, HARRISON, JAXON, AC, LOVEJOY Locations of Control Branches

DALLAS DENVER DETROIT INDIANAPOLIS

LOS ANGELES MILWAUKEE MINNEAPOLIS

PHILADELPHIA PITTSBURGH ST.LOUIS SAN FRANCISCO SEATTLE TORONTO, CANADA

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Not this— \$2.40 for a set of Ford plugs

nor this— \$2.00 for a set of Ford plugs

but this \$1.75 for the SPLITDORF FORD SPECIAL

Splitdorf Spark Plugs for Fords are the only high-grade plugs retailing at \$1.75 for a set of four and giving the dealer a maximum profit on every set.

SPLITDORF ELECTRICAL COMPANY 392 High Street, Newark, N. J.

Subsidiary of Splitdorf-Bethlehem Electrical Company

SPLITDORF HALF - DOLLAR SPARK PLUGS

a type for every engine

for the set-a real money maker for the dealer.



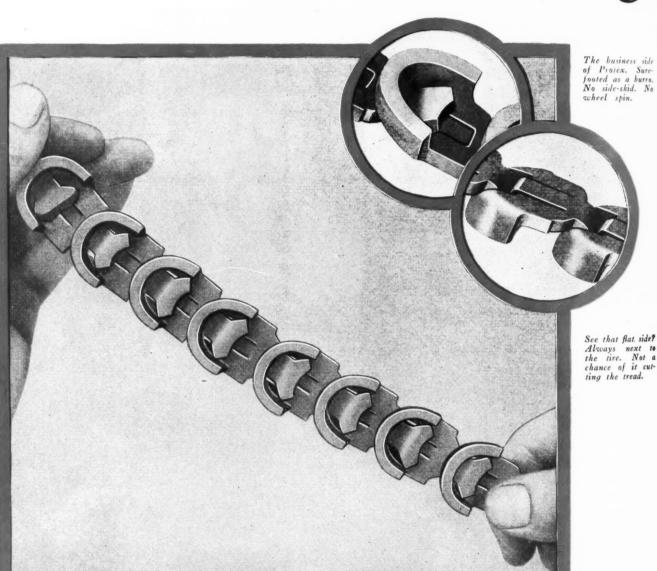
#### This amazing road test

"The Protex set which you furnished me last winter outwore two other well-known tire chains, namely, the — and the — chains. These chains were all used on my own car, which enabled me to give each a fair trial."

From a prominent Detroit distributor.



## in anti-skid chain design in



See that flat side? Always next to the tire. Not a chance of it cut-ting the tread.

When we introduced the Protex Chain to the trade two years agoit marked a tremendous advance over conventional chain design. But we did not stop there. Since then our metallurgical engineers have been working 24 hours a day making constant improvements in design and quality of material. Today—we offer the trade a *new* Protex Chain—better than ever—and one that we believe to be truly a perfected anti-skid tire chain development.

# The first real advance in the last decade~~~

Here at last is true anti-skid design . . . plus amazing wear-strength . . . and a far greater selling net for you.

Motorists welcome this new-type chain. Radically different-it meets their idea of what an anti-skid tire chain should be. The first chain that guarantees prevention from skid in any direction. Every link of Protex is built the shape of a horseshoe—and a full inch wide. Traction! Even on glassy, ice-coated streets they can't slip. Sideskid and wheelspin absolutely overcome.

Protex Chains are built of the finest chrome-silicon steel-specially heat-treated. Almost wearproof! Use them steadily in city running over bare, wet concrete and cobblestones. Read how they outwore two other well-known tire chains.

Truly . . . Protex is a remarkable advance in tire chain construction.

More than 18 ordinary "chains" are fighting for the business. Now—step out of competition with Protex—today's idea of 100% anti-skid protection!

Ask your jobber's salesman—or write us direct.

PROTEX CHAIN COMPANY

Waynesboro, Pa.

FREE! Protex tire and tirechain size chart

A tire-chain size conversion tablet that may reduce your stock investment. And a display wall hanger on Protex Chain. In place on the photograph of the tire is an actual metal Protex cross-chain.

District Sales Representatives:

Accessory Sales Co., 1834 Broadway, New York City
L. L. Schnetzler, 704 Abbot Building, Philadelphia, Pa.
Walter Eckhouse & Co., 616 S. Michigan Ave., Chicago, Ill.
G. A. Ashton Co., 1547 University Ave., St. Paul, Minnesota
W. C. Rice Co., 623 Larkin St., San Francisco, Cal.
Simms & Crane, 314 Wynne Claughton Building, Atlanta, Ga.

= THRE CHAINS=

"

## I didn't know I had a chance to Get the Chrysler Franchise

# Dont You

In a certain Ohio town there was a retail automobile organization which included three partners. One of them withdrew and formed his own company. He secured the Chrysler Franchise. Some days later, one of the two remaining partners in the original firm was heard to remark—"I guess we'll have to hand it to John. I am frank to say that if we had known the Chrysler Franchise was obtainable, we'd have gone after it ourselves." Don't assume that the Chrysler Franchise is not available from the fact that you consider it more desirable than the one you now have. You don't lose anything by asking.

Chrysler Scores Again

The public acceptance of the new Chrysler "52", "62" and "72" has been instantaneous. Their success surpasses even our highest hopes. Dealers everywhere tell us that already thousands upon thousands of owners of these new cars have demonstrated qualities of performance, luxury and value beyond our most enthusiastic claims.





WIRE, WRITE

# Wait.



FOR more than three years Chrysler production has steadily grown—at a rate unequalled in automobile history of the last ten years.

Chrysler's record of advancement from 27th to 4th place in the industry stands alone and unequalled.

Needless to say, Chrysler dealers have profited enormously from this growth.

However, as Chrysler reputation and sales have developed and extended, the demand for Chrysler cars has also been developing and extending.

Even the enormous Chrysler dealer organization—ranking among the very top few in the industry—is not now extensive enough to take care of the sales which can easily be procured.

Chrysler manufacturing facilities are now so developed that continuous Chrysler growth can be assured.

Consequently it is now possible for many dealers in the communities not now served by Chrysler representation, to take advantage of this nation-wide rush to the Chrysler product.

Maybe you have, at times, cast longing eyes on this franchise, but have never felt that it was available.

Why not investigate, NOW! There may be room for a dealer in your very community.

Particularly if you are located in a town with 5,000 or less population—it is to your interest to get additional facts about the attractive franchise proposition which has been specially prepared for automotive merchants in the less populous communities.

The indelible evidence of the moneymaking powers of the entire Chrysler line, certainly indicate that you should not allow this opportunity to pass without fully informing yourself.

CHRYSLER SALES CORPORATION, DETROIT, MICHIGAN CHRYSLER CORPORATION OF CANADA, LIMITED, WINDSOR, ONT.



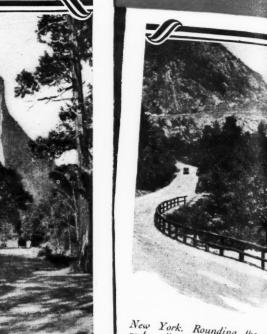
or PHONE NOW

Your inquiry will be held in the strictest confidence and whether a permanent connection with our company results or not, the confidential nature of your inquiry will be respected.



Massachusetts. Driving along America's oldest public street, Plymouth. om Ewing Galloway, N. Y. Photo by De Cou, fr





New York. Rounding the sneer

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## PROFIT

SEASON by season Multibestos Brake Lining is taking a more and more important place among the replacement items in the dealer's stock for at least one very good reason—the excellent *profit* it yields.

Profit that comes not alone in the excellent margin on the merchandise itself-but in the fact that it is such a real time saver.

For Multibestos saves time in two ways.

1. In sales time. Multibestos' national reputation, through

**NATIONALLY** 

MULTIBESTOS BRAKE



MULTIBESTOS COMPANY WALPOLE, MASS., U.S.A.

BRAKE



MULTIBESTOS COMPANY



ULTIBESTOS



IBESTOS COMPANY POLE, MASS., U.S.A.



California. A hill-bound lake near Tioga Pass in the Sierras. Photo by Ewing Galloway, N. Y.

MANY of Nature's

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Oregon. Winding Widby Loops on the Columbia River Highway.



New York. Gazing down from lofty Croton Dam. By Ewing Galloway, N. Y.

TARROW

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## MINUTES!

advertising and through its wide use as factory equipment, makes it quickly accepted by the consumer.

2. In installation time. Multibestos is easily and quickly installed. The foot markings on every roll—exclusive with Multibestos—and the time saving relining equipment available to Multibestos Dealers make relining a simple and easy matter

Let us send you the Mutibestos Profit Proposition.

MULTIBESTOS COMPANY, WALPOLE, MASS., U.S.A.

# BRAKE LINING

MULTIBESTOS BRAKE LINING



MULTIBESTOS COMPANY WALPOLE, MASS., U.S.A.



BRAKE LINING



TIBESTOS COMPANY POLE, MASS., U. S. A.

# CUT THE COST

## of Motor Reconditioning-

CORK-SEALED PISTON RINGS are effective in old and new cars. They positively prevent tapering, rocking, slapping, ring leaks and blow bys. "Cork-Seals in time saves a regrind," and preserve the motor for the life of the car. Many users report 35,000 to 50,000 miles with one set of Cork-Sealed Rings. Put in the SNAP and take out the SLAP with Cork-Seals, which produce the perfect seal.

## MONEY MAKERS FOR YOU

Supported by the sealing gasket, Cork-Seals keep the piston true to center in the cylinder. This gasket forms a resilient cushion, is chemically impregnated, pressed under twenty tons pressure and heated to 400°. The taper or opening at the top of the piston is perfectly bridged. Low ring tension eliminates wear on cylinder wall. Cork-Seals insure satisfied customers.

Write today.



#### De Luxe Relief (Oil) Rings

All motor troubles such as oil pumping, carbon deposits, fouled spark plugs, etc., are eliminated by DE LUXE RELIEF RINGS. This is an oil ring you can well afford to recommend and the price is right.

#### De Luxe Step-Cut (Plain) Rings

are most effective for general reconditioning. The De Luxe Step-Cut Piston Ring is new and different, unusual tension, finish and flatness, producing power. They sell at *lower prices*.

## Cork-Sealed Piston Ring Corp.

2332 S. Michigan Blvd., Chicago, Ill.

Factory-Denver, Colo.

Canadian Distributors:

Cork-Sealed Piston Ring Co.

Toronto, Canada

# Get pocket This postrator. This postrator.

It will help you check up the ignition of any car—and proves improved ignition performance with the

# LEPEL CONVERTER (NOT A "SPARK-GAP")

HERE is the most revolutionary improvement in ignition since the invention of the spark plug—for the Lepel Converter gives a Hotter Spark—Sure Firing—Less Fouling—Easier Starting—Smoother Idling—Quicker Pick-Up—Better Acceleration—Improved Ignition Performance!

The Lepel Converter is especially adapted to the activ-

ities of jobbers and dealers handling ignition parts. It is a volume line—can be used on every spark plug—every car is a prospect. The profit margin is good.

Don't take our word for this—send us the name of your ignition jobber and we will send you the pocket demonstrator without charge—then let your own eyes convince you.

## LEPEL IGNITION CORPORATION

117 WEST 63rd STREET

NEW YORK CITY

# fication

#### Standard Equipment

#### Old Method

- 1. Engineering Dept. draws up specifications for pistons and pins with agreed tolerances and metallurgical requirements—lacking complete piston-performance information accumulated by Arrow Head during its many years of service. 1
- 2. Prints are sent to various manufacturers. Purchasing Dept. shops for quality and price, with financial ability to carry out contracts. These costly methods cause delay and increased overhead.
- 3. Purchasing Dept. buys pistons from Source A. 1
- 4. Purchasing Dept. buys pistons from Source B. 1
- 5. Purchasing Dept. buys pins from Source C. 1
- Other continuous operations required: Purchasing and follow-up Receiving
- Inspection Accounting Stock Keeping Deliveries to Production Dept. Weighing pistons into balanced sets Try-fitting and sorting pins to pistons Assembly Inspection Try-fitting pistons to cylinders Final fitting Final inspection

Total operations

#### **Arrow Head Method**

- 1. Engineering Dept. specifies Arrow Head balanced piston-and-pin assemblies, and se-cures constructive information from Arrow Head Engineers, who know actual field performance of all motors.
- 2. Purchasing Dept. automatically functions at reduced cost, merely supplying Arrow Head with schedules, etc. Saves large factory inventories of unbalanced stocks of pistons and pins. Arrow Head pistons, fitted with pins, flow in as needed.
- 3. Inspection Dept. watches for damage in transit and metallurgical requirements. Arrow Head acts as specialized department of other manufacturer and applies final inspection methods of complete engine manufacturer.
- 4. Pistons-fitted-with-pins go direct to block assembly line—no costly reinspections, physical transfers in and out of stock-rooms, or tied-up money with consequent interest losses.
- Quick turnover.
  5. Production Dept. installs Arrow Head piston-and-pin assemblies without try-fittings. Cylinders are all bored to single over-size and pistons with all reliefs are ground to fit and perform immediately. When the few blocks have to be rebored or reground, a few piston oversizes are supplied by Arrow Head on same efficient basis. One large manufacturer in public trade speeches has recently described how his man-hour productivity in engine as-sembly has thus increased to almost unbe-

Total operations

5



Save 20 machining, Save 20 machining, inspecting and fitting operations when you build a Motor—use Arrow Head Balanced Piston-and-Pin assemblies—just unwrap and slip into place. Consider how much this plan simplifies operation, both for equipment and service. You will then reach the same conclusion at which a large and increasing number of other motor makers have arrived—to profit by Arrow Head's vast experience and highly specialized facilities as piston-and-pin headquarters for the motor industry, by specifying Arrow Head balanced piston-and-pin assemblies exclusively.

ARROW HEAD STEEL PRODUCTS COMPANY Buffalo MINNEAPOLIS, MINNESOTA Chicago

Jobbers' Stocks in All Leading Cities



31



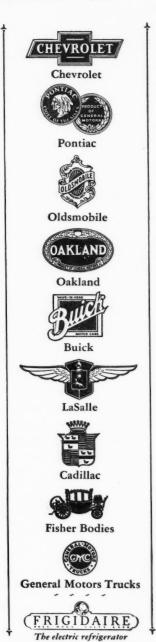
# FACTS -AND THE OPEN MIND

THE MOST important element in business success—and the most difficult—is to be sure that you have all the facts before you act.

To GET them all, from every possible source, is the first objective in General Motors. The Research Laboratories contribute some. These are nuggets, left in the crucible, after hundreds of ideas that looked good have been burned away. The Proving Ground contributes others. Dealers contribute. The public contributes. Every department contributes. Through the whole organization runs a spirit of inquiry and of rigid insistence on proof.

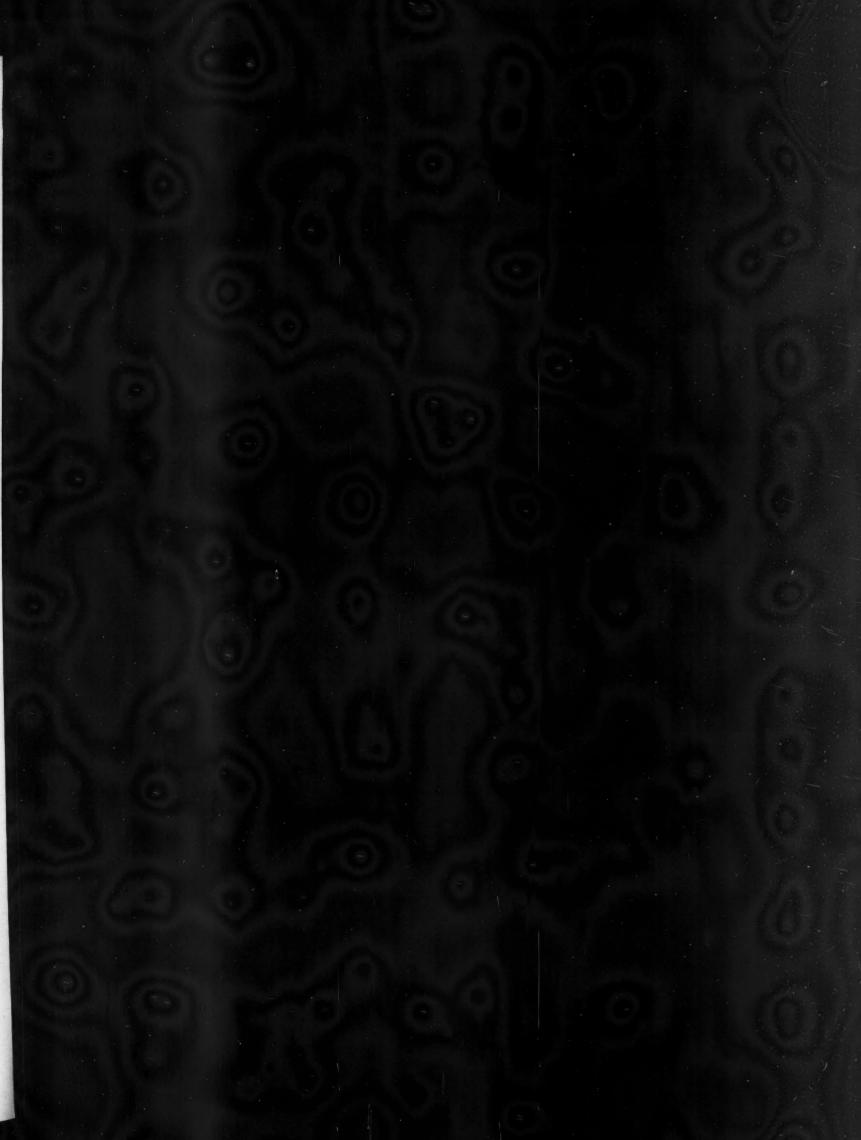
Out of such thinking come the new models announced from time to time by Chevrolet, Pontiac, Oldsmobile, Oakland, Buick, LaSalle, Cadillac—all with Fisher Bodies. And by *Frigidaire*. Each new model is a tested step forward. Nothing goes into it as a result of habit or guess or pride of opinion.

Nothing counts but hard-won facts, gathered and used with an open mind.



## GENERAL MOTORS

"A car for every purse and purpose"





Add a Lasting Thrill to any Motor



Bohn Products include Ring True Bearings—Bohnalite Castings, semi-permanent, permanent mold and sand, Nelson Bohnalite pistons; we also supply the government with replacement pistons and bearings for the Liberty engine.



Before NELSON BOHNALITE Pistons were adopted as standard equipment in cars of famous manufacturers they were tried by every test the automobile industry knows—in laboratory, on proving ground and road.

In exhaustive tests and now as standard equipment in many of the best automobiles of the country, Nelson Bohnalite Piston has proven that it combines all the advantages of light alloy and cast iron—to a plus degree.

## The Backbone of Steel or Strut

Special alloy steel struts are cast in, to control expansion and maintain satisfactory clearances under all engine operating conditions. The struts are the backbone of biston endurance and long life.

BOHNALITE, the alloy from which this piston is made, should never be confused with any other light alloy upon the market. Every Nelson Bohnalite Piston is heat-treated for uniformity, strength and hardness.

Nelson Bohnalite Pistons are already being used by manufacturers of cars, for which they claim unprecedented performance—a list of them will be gladly furnished upon request along with a booklet which further describes the design of this outstanding piston.

# BOHN ALUMINUM & BRASS CORPORATION EAST GRAND BOULEVARD, DETROIT



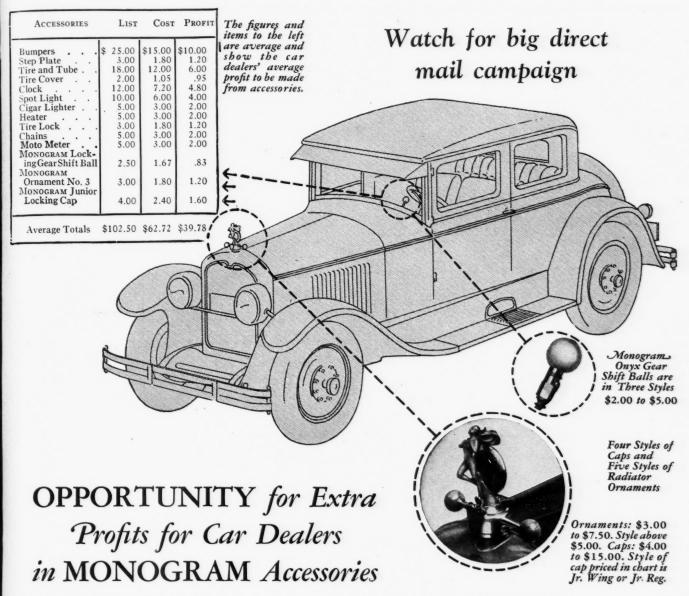
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R. Car Dealer: —What will be your net profit, at the end of the year, after deducting your used car losses.

Your own National Automobile Dealers' Association tells you that accessories (dollar for dollar) will give you more than five times the profit that you can get from car sales.

#### See What These Figures Mean to You

Net profit per dollar on carsales—16/10% Your Associa-Net profit per dollar on accessories—11% tion figures. But You Can Make—26% if you buy from our jobbers.

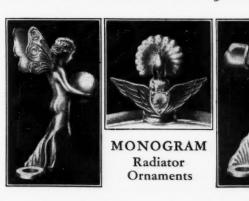
If you do not know a MONOGRAM Jobber in your locality write us.

Every time you sell a new (or used) car without extra accessories you are taking good money out of your own pocket. MONOGRAM Radiator Caps, Radiator Ornaments and Onyx Gear Shift Balls insure you a much greater profit than 11% and help you put over many car sales.

Four radiator caps, three gear shift balls and five DeLuxe radiator ornaments give you a balanced line to choose from for any car or pocket book. Ask us for Monogram literature.

THE KINGSLEY- MILLER COMPANY, 600 West Jackson Boulevard, Chicago, Illinois

These
DeLuxe Radiator
Ornaments are
in five styles



These ornaments are for use with or without motometer

# P A I G E

For twenty-five years, the final test of worthiness for any product built by us has been value to the owner.

Joseph B. Fraham Robert C. Fraham Play al Lucham

## Did You Enjoy This Copy?

OU can get one like it every week for only \$3.00 a year—an average cost of a little less than six cents each.

Each and every man in the trade needs MOTOR AGE — needs the

positive help it offers in the solution of daily problems and the valuable ideas it gathers for its readers.

Your competitor reads MOTOR AGE, and you need to read it also if you want to keep up with the leaders of the automotive field.

## Here's How MOTOR AGE Will Help You

SERVICING —MOTOR AGE will show you how to make flat rates—How to sell Service—How to make customers permanent—How to organize a workshop—How to handle knotty problems—How to select Machinery—How to test electrical systems—How to make quick repairs—How to route shop work.

HIRING—How to get the right men

How to pay them—How to get their cooperation—How to keep them enthusiastic.

BUYING —How to select an accessory stock — How to judge merchandise—How to get a fast turnover—How to avoid dead items.

SELLING —How other men do it
—How to keep down
overhead — How to advertise:— How to
make Salesmen produce — How to create
a market—How to find prospects—How to
make every sale pay—How to avoid losses
—How to write letters that build business.

#### AND THEN . . . .

Whatever else you need to know to make your business run smoothly MOTOR AGE will tell you if you only ask—All personal inquiries receive personal attention from our editors. Every subscriber is encouraged to come to us with his problems, whether mechanical, legal, architectural or financial. Try us, and we will give you "Service you will like."

THE COUPON is here for your convenience. If you are already a subscriber, pass it on to some friend in the trade who is not. When he starts getting MOTOR AGE he'll appreciate the favor.

#### MOTOR AGE

Chestnut and 56th Streets Philadelphia, Pa. IMPORTANT—MOTOR AGE is published exclusively for the trade. Subscriptions are accepted only from these actively engaged in our field—so please don't forget to include your business card or letter head with this order.

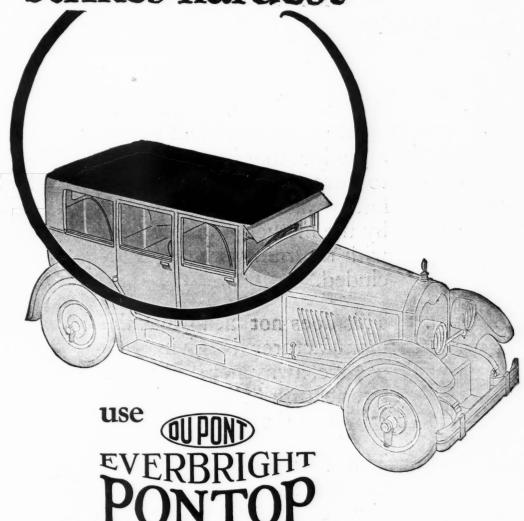
Gentlemen: Enclosed find \$3.00 to pay for a year's subscription to MOTOR AGE, including all special issues published during the life of my subscription.

City State

NOTE: If you are already subscribing to MOTOR AGE, please hand this coupon to a dealer who is not. He'll become a better competitor from reading MOTOR AGE.

DU PONT OBSERVES A CENTURY AND A QUARTER OF USEFULNESS TO THE AMERICAN PEOPLE

# Where the weather strikes hardest



## for complete protection

WHEN Fall rains drench—then comes the test of perfect decks—or decks that just "get by". Then is the time the deck can make or mar the owner's vision of your car.

Du Pont Everbright Pontop is made of rubber. It will not leak. It gives complete protection and is permanently waterproof.

It has a lustrous finish, too, that endures long months of wear and weather. It keeps cars looking new.

Supple, pliant, easy to tailor, it speeds production, keeps costs down and gives the owner a greater value for his money.

E. I. DU PONT DE NEMOURS & CO., INC., FAIRFIELD, CONN.

Detroit Office—General Motors Bldg., Detroit, Mich.
Canadian Manufacturer—Canadian Fabrikoid Limited, New Toronto, Ontario

# Is Something for Nothing Always "Worth Just That"?

IT occasionally happens that the manufacturer of a product that is good, elects to introduce it by the distribution of free samples—or by the method of a free trial with returning privileges included.

This does not mean that the manufacturer is giving his product away, nor should the free feature belittle it in the minds of the trade.

The cost of free samples and free trials is legitimately charged to marketing expense—and should reflect the manufacturer's confidence in his product to satisfy, and make good.

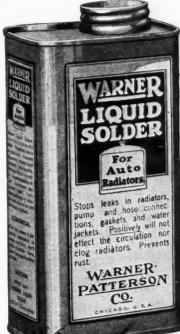


Chestnut and 56th Streets Philadelphia, Pa. Many "Radiator Compounds"

Come and Go, While

WARNER LIQUID SOLDER

Rises Higher in Public Demand





Despite the failure of those "direct-to-dealerbrands," and those "just-as-good-brands" and those "premium-brands" that you got stung with in the days past, still other new brands of the same character are being offered to you today. THEY TOO WILL have a short life.

Compare to that, the fact that Warner Liquid Solder has steadily INCREASED in sales. Today it is the LEADER.

Why?

Because it is a superior product, scientifically made—It is guaranteed by a reputable maker—it is sold on a money back basis—millions of car owners endorse it—it enjoys public favor—it sells easier and in greater volume.

Because WE are the BIGGEST national advertisers of this kind of merchandise . . . and it is sold on a 100% Jobber Policy that protects you.

You don't want premiums but profits. WE CREATE buyers for you that give you TURN-OVER instead of LEFT OVERS.

It is impossible for a dealer to get hooked with Warner Liquid Solder.

It is a liquid asset on your shelves, as good as cash, because you can always get more out of it than you invested. It always has a market value

ALL of those brands are in the discard today.

You are in business to make money, noth-

You can't laugh off this fact—that during the last ten years SEVERAL THOUSAND different

brands of so called "radiator compounds" have been put on the market. Some were "local" brands made in kitchens. They had NO excuse

for their existence except that their makers wanted to SELL them TO YOU.

HY mince words?

ing else but!

The only place you can get it is from your Jobber, who calls upon you regularly.

ASK YOUR JOBBER'S SALESMAN FOR THE "SPECIAL" ON WARNER LIQUID SOLDER BEING OFFERED DURING SEPTEMBER. 100 PER CENT PROFIT FOR YOU

## **ALVORD**

No. 500

VALVE RESEATING REAMER SET



List Price \$22.50

## Costs less— Services 90% of all Passenger Cars

The Alvord No. 500 Valve Reseating Reamer Set is a real bargain and it will service 90% of all passenger cars in use today. The five reamers and three pilot stems are regular Alvord-Polk quality—and that means a lot. We also make a Special Valve Reseating Reamer for Fords and Chevrolets. The price is moderate and the tool more than pays its way.

No. 600 Set is the one you want for servicing 90% of all passenger cars and trucks. List Price, \$40.00. Contains 10 Reamers and five interchangeable Stems.

If you don't know your Alvord-Polk Jobber, write direct to us. Catalog free upon request.

ALVORD-POLK TOOL COMPANY Millersburg, Pa.

ALVORD - POLK

Tools for Repair Shops

# Advertising Forms of MOTOR AGE

OF WEEK OF
PUBLICATION

## Color Forms

Including Cover, Close on Friday previous to week of publication.

## STORMIZING and Profits

(The Accurate method of cylinder renewing is also the profitable method.)

POR several months, we've been emphasizing that above all STORM-IZING is the accurate method of cylinder renewing. We've stressed the fact that this accuracy is due to the machine itself instead of the man who runs it. We've featured the ease of operation that enables any mechanic in a STORM equipped shop to do square-with-crankshaft work.

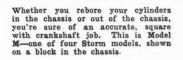
Now here's something about the profits!

\$50.00 is the average charge for STORMIZING a 31/4" six cylinder motor, including new pistons, rings and pins. Of this \$50.00, \$32.63 is net profit to the STORM equipped shop. (This profit is based on average labor and

parts costs and in our belief is truly conservative.) Actual

precision work merits good profits.

What advertising is so good as service—what service is as important as accurate cylinder renewing? STORMIZING cuts down time on cylinder renewing and is as profitable as it is accurate. Write today for a free copy of our booklet, "Stormizing As A Business And Process."



STORM MANUFACTURING CO., INC. 406 (A) 6th Ave. So., Minneapolis, Minn.

## There are Profit Making Ideas in Every Issue of

## MOTOR AGE

Many subscribers of MOTOR AGE, who realize the value of its contents each week, route every issue regularly through their places of business to all departments.

As a means of business-building this is a profitable habit to encourage, both for the benefit of the organization and its individual members. It is always best to read MOTOR AGE every

## MOTOR AGE

CHESTNUT and 56th STS.

PHILADELPHIA, PA.

## The New Ames Test Bench



Checks up every knock in the motor or every hum in the gear assemblies. Proves the wear and shows what needs to be done. Helps beat the flat

> Ask your Jobber or send for information about this new tool today.

B. C. Ames Co., Waltham, Mass.

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B. C. Am	es Co.,							
Waltham,	Mass.							
Send me	complete	infor	mation	about	the new	Ames	Test	Benc
Name								
Address								

## **Accurately Machined**



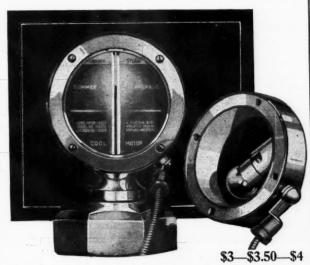
The machines on which Toledo Valves are made are especially designed and tooled for this one product. A high degree of accuracy is maintained throughout the plant. Motor car manufacturers' standards are easily held, and many dimensions under the standard machine limits are produced with unvarying accuracy. Absolute uniformity of the product is further assured by a rigid inspection of every dimension and of every valve. All valves are also tested at the weld. Leading jobbers everywhere have Toledo Valves for all cars and motors.

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Use

Valves Exclusively for Over Thirteen Years

**TOLEDO VALVES** 



An Electric Light for Motormeters That Makes Them Readable After DARK

Every second car has a motormeter—which makes every second user an instant prospect for C-Lite.

A soft green light behind the thermometer that makes it readable after dark.

3 models fit all Motormeters. A small investment for you—that pays in rapid sales. Write for complete details.

SAVERY MFG. CO.

Binghamton, N. Y.

## CLITE

Makes Motor-meters readable at night

FOLLETT'S NEW MODEL TIME STAMP



Learn the interesting detail rom our de Prints the year, month, day, hour, minute, A.M. or P.M. at the exact moment the plunger is pressed—like this, for example:

NOV 19 1920 4 31 PM

Tells when a job is started—and when it is finished. There can be no dispute over the time charge.

Absolutely automatic — except for winding. Every machine guaranteed,

Follett Time Recording Co., 217 High Street, Newark, N.J.

"Established Since 1904"

## KISSEL

CUSTOM ( BUILT

Completely Cushioned-In-Rubber

Kissel Motor Car Co., Hartford, Wis.

### Simplicity REG. PU.S. PAT. OFF.

HEADQUARTERS—Most Complete Line of Precision Motor Reconditioning Machines Sold by any Single Manufacturer in the United States.

#### Cylinder Reconditioning

SIMPLICITY REPORER AND GRINDER gives you the best chance to win out—positive accuracy, earning power and a business getter. For filling "scores" in cylinders we recommend SIMPLICITY "SCORE" FILLER.

VALVE RECONDITIONING—For reconditioning valves we have Simplicity Valve Grinder—Hub City Valve Seat Replacement Tool and Simplicity Reseating Cutters and Pilots.

CONNECTING ROD RECONDITIONING—Green Bros. Rebabbitting and Bearing Fitting Machine—Green Bros. Electric Reamer Drive with foot control. Connecting Rod and Piston Aligner.

MAIN BEARING RECONDITIONING — Hub City Main Boring Tool—Simplicity Crank Pin Tool.

PISTON RECONDITIONING—Simplicity Piston Grinder—Green Bros. Electric Reamer Drive with foot control.

PRECISION GAUGES—Complete line of micrometers and gauges of all kinds.

SIMPLICITY MFG. COMPANY
20 South Pierce St. Port Washington, Wis.

## Made Especially for Garage Use

## Always Reliable" Torches

Practical, durable and economical torches for all around use.

The "Always Reliable" torches and furnaces are made in all sizes and grades. Ask for

Most jobbers stock. Others will order.

#### OTTO BERNZ CO., Inc., Newark, N. J.

Stocks in Newark, N. J., New York City, Chicago and San Francisco.

Offices in Newark, N. J., New York City, Chicago, Fort Worth, Denver, Helena, Mont., San Fran-cisco, Los Angeles, Seattle and St. Thomas, Ont.

## SIMPLE Piston Rings

#### A Good Piston Ring Should

not only stop oil pumping and carbon trouble but should also stop compression loss and piston slap.

## Only Simplex Rings Do All These Things

Use the same cylinders and pistons without replacing anything but the rings—two to each cylinder.

The Simplex Piston Ring Co. of America, Inc.

1971 East 66th St., Cleveland, Ohio

#### You Can Reach Easier with The New DOVER FLEXO COMBINATION MEASURE and FUNNEL

Conveniently reaches any oil hole or tank on any make of car. Quick, clean and easy to use. Tube unand easy to use. Tube unscrews and packs inside of measure. Made in 3 capacities: 1, 2 and 4 quarts. Prices: \$2.00, \$2.25 and

Patented



Dover Stamping & Mfg. Co. 385 Putnam Ave., Cambridge, A, Mass.

### Go into this profitable business!

There is a lot of extra money in sight for your shop if you equip it with Lange Glass Edgers so that you can handle auto glass repair work. We have many thousands of machines in use all over the world, and our customers tell us they soon paid for their edgers.



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## **FREDERICKS** Rewinds

New low prices: Rewinding or exchanging any two unit type of automobile generator or starter armature, \$2.50. Any type of Ford armature \$1.50. Special prices on Ford armatures in quantities. H. M. FREDERICKS CO., Look Haven, Pa.

## LINCOLN SHOCK ABSORBERS

For All Cars-\$15 to \$40 Per Set of Four LINCOLN PRODUCTS COMPANY, 2649 N. Kildare Ave., Chicago, Ill.



CHICAGO, ILL.

AUTO TRUNKS
AUTO TRUNKS
Wide assortment of automobile trunks for various model cars.
Absolutely new stock, each

Wire or write today for New and Used TIRES—
PARTS—ACCESSORIES—"If its for an Automobile We Have It."

Motor Trunks, Racks and Equipment exclusively. All types and styles. Genuine Duco finish, or bright black. A money-making line. Write.

BIGLER MANUFACTURING CO.

CHIPPEWA FALLS High St.

WISCONSIN

#### WE MAKE

#### RADIATOR CORE MACHINERY

Write for Catalog and Prices

RADIATOR ENGINEERING CO. FACTORIES BLDG. TOLEDO, OHIO



#### ¬OODRICH-LENHAR¬ CABLE KIT

Displays six starting, lighting, ignition, a cables. Puts them right where they sell the effort. On spools—no loose ends. plays actual samples of full G-L line.

Kits are supplied through all G-L Jobbers. Write for price and name of nearest jobber!

Goodrich-Lenhart Mfg. Co.

Hamburg, Penna.





It's a Permanent Repair!

Have a can of CONNEAUT PLASTIC METALLIC PACKING in your garage and be ready for the fellow who says he can't keep his water-pump from leaking. All sizes in one can. Stocked with your Lobbor.



Gas Gauge for Ford Chevrolet—Overland—Star Sells quick at \$1.25 retail. Types "K" and "J" for 1926 Chevrolets and all Stars sell at \$1.50.

THE AKRON-SELLE CO.



AKRON, OHIO



Orrville Spring Governors

Make Smooth-Running Profits

Among the foremost popular sellers for easier riding. Simple in operation and easy to install. Check the rebound and control the springs against "galloping". Ask for illustrated literature and discounts worth while.

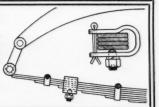
ORRVILLE SPRING GOVERNOR CO., INC.

Canton, Ohio 500 Brant Bldg.

Does His Car Kangaroo?

Simplex Shock Absorbers positively control Spring Recoil. The \$9.50 retail price provides a generous profit for you. Write for discount and full information.

Simplex Shock Absorber Co. Sharon, Penna.



Damageproof against repeated boilings and freezings. Built to last the full life of the car. Complete radiators for Fords, Chevrolets, Dodges and Maxwells. Cores for all cars and TRUCKS. If not at your jobber's, write direct.

J. C. Black Mfg. Co., Inc., Oil City, Pa.

Trunks, Trunk Carriers, Pumps, Bumpers, Jacks
See our combination trunk, trunk carrier, spare tire
carrier and bumperette. COMPLETE line for all
cars. Write for prices and nearest jobber.

THE BELLEVUE MFG. CO.

Bellevue, Ohio

Tests Compression Locates all knocks, leaky valves and rings Locates Piston Slaps

Eliminates guesswork SELLS MORE JOBS



Five Different Oversizes

for every standard size and type of piston pin always in stock, waiting for your telegraphic order. Ask for telegraph ordering code and catalog. Free.

THOMPSON PISTON PINS DEFIANCE



HAMMETT MFG. CO., Kansas City, Mo. MOTOR TESTER

### essens Ford Vibration



Molds Ford engine in a tight grip that steadles chassis; lessens danger of broken cankcase arms, sets permanently those already broken Write today for dealer proposition

The Brewer-Titchener Corporation 108 Port Watson St. Cortland, N. Y. 300

Shop Equipment

for Battery and Electrical Service

Chicago, Illinois



REPLACEMENT

Brake Springs, Clutch Plates, G-H Tension Rings, King Bolt Lock Pins, King Bolt Thrust Washers, Piston Pin Retaining Springs, Valve Lifter Assemblies, Valve Springs, Valve Stem Keys, Valves. G-H MANUFACTURING COMPANY, Inc.

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"What a difference a New Fender Makes!"

Repair Shops equipped with the Fostoria Fender Wall Chart can get immediate fender service from the nearby Fostoria Distributor. No watting. More profit. Pleased customers. The Wall Chart is Free. Write for it today. Dept. A-9.

FOSTORIA PRESSED STEEL CO. Ohio FOSTORIA FENDERS

Every year more motorists are saying . . .

WHEEL COMPANY Philadelphia • Detroit



THE WEL-EVER PISTON RING CO., TOLEDO, OHIO Sold most everywhere. If your dealer cannot supply you write us.

AUTOMOBILE RADIATOR ANTI-FREEZE SOLUTION, NON-EVAPORATING, NON-CORROSIVE—Distributors and agents wanted for the sale of this improved ANTI-FREEZE SOLUTION. Exclusive Territories. Big commissions or discounts. Now is the time to contract for next season. Acme Oil Corporation, 189 N. Clark St., Chicago, Ill.

To locate business opportunities To sell, rent, exchange or buy To find men or employment

THE CLASSIFIED DEPARTMENT WILL HELP YOU

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Wanted—Hear from owner good garage for sale. Cash price, particulars. D. F. Bush, Minneapolis, Minn.

WANTED—Position as field man for some automobile company in some of the middle states. Ten years' experience as automobile salesman with Studebaker and Chrysler. Can give reference. T. J. Quesenberry, Box 202, Erwin,

#### C. L. PARKER

Ex-Examiner U. S. Patent Office Attorney-at-Law and Solicitor of Patents

McGill Building, Washington, D. C. Patent, Trade Mark and Copyright Law





## Our Business and Yours

Ball Bearings are our business—have been our specialty for many years. B. C. A. Bearings are the product of experience and study of automotive requirements. Their record of performance is a pledge of unusual service.

Our bearings experts are always ready to study the bearing problems of automobile manufacturers.

Bearings Company Of America
Plant Lancaster, Penna.
Detroit Michigan Office 1012 Ford Building.

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No allowance will be made for error	s or failure to insert.
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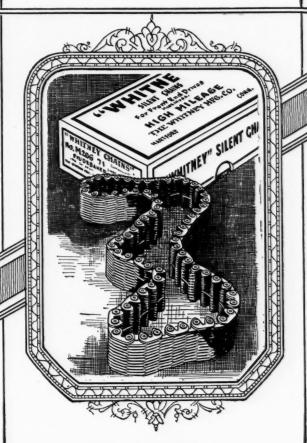
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#### PLANNING FOR TOMORROW

- ¶ Not how powerfully the motor runs today, but how it will work a year from now.
- ¶ It depends largely on the SILENT TIMING CHAIN.
- "WHITNEY" CHAINS are built with this thought in mind.
- ¶ Service men who are planning for tomorrow install them because they are

QUIET and PERMANENT REPLACEMENTS

## WHITNEY

CHAINS

THE WHITNEY MFG. CO. HARTFORD, CONNECTICUT

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#### THE UNITED STATES ELECTRICAL TOOL COMPANY

Oldest Builders of Electric Drills and Grinders in the World 2497 WEST SIXTH STREET, CINCINNATI, OHIO, U.S.A.

Export Sales Representatives—WESTINGHOUSE ELECTRIC INTERNATIONAL CO.—150 Broadway, New York, N.Y.

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CAPACITY 21/2 TONS



Operates Like a Barber's Chair

The hydraulic principle eliminates most of the frictional losses. making it easy to lift the maximum load with one hand.

The Jack lowers automatically when you press the foot pedal.

(Minimum height 51/4")

Jack may be operated by long or short strokes with the handle in any position from vertical to horizontal, making it easy to use under overhanging bodies or in close corners.

Wheels are equipped with roller bearings and casters with ball bearings, making it easy to roll cars over rough floors.

Jack is provided with safety valve, making it impossible to overload.

Cat. No. 555—Manley Hydraulic Jack (steel wheels).....\$48. Cat. No. 556—Manley Hydraulic Jack

(rubber tires)......\$59.

Your Jobber has them in Stock

MANLEY MFG. CO., -- YORK, PA

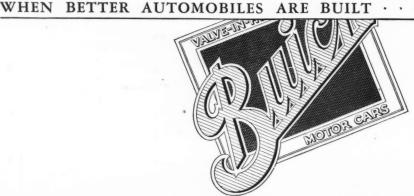


Year after year, without a break, Buick holds its position of sales leadership among all six-cylinder cars. As a result of this unbroken succession of good years, you will find wherever you go that the holder of the Buick franchise is among the most *prosperous* automobile dealers in his community.

BUICK MOTOR COMPANY, FLINT, MICHIGAN

Division of General Motors Corporation

· BUICK WILL BUILD THEM



Those Who Desire the Buick Franchise Should Have Their Names on File.